1. NAME OF PROPERTY

Historic Name: Medicine Wheel/Medicine Mountain (Updated Documentation, Boundary, and Name Change)

Other Name/Site Number: Medicine Wheel

2. LOCATION

Street & Number: Bighorn National Forest, US 14 Alternate and USFS Road 12 Not for publication: X

City/Town: Lovell Vicinity: X

State: WY County: Big Horn Code: 003 Zip Code: 82431

3. CLASSIFICATION

Ownership of Property		Category of Property	
Private:	____	Building(s):	____
Public-Local:	____	District:	X
Public-State:	____	Site:	____
Public-Federal:	X	Structure:	____
Tribal Lands:	____	Object:	____

Number of Resources within Property

Contributing	Noncontributing
0	4 buildings
23	5 sites
0	11 structures
0	0 objects
23	20 Total

Number of Contributing Resources Previously Listed in the National Register: 1

Name of Related Multiple Property Listing: N/A

4. STATE/FEDERAL AGENCY CERTIFICATION

As the designated authority under the National Historic Preservation Act of 1966, as amended, I hereby certify that this ___ nomination ____ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property ___ meets ____ does not meet the National Register Criteria.

Signature of Certifying Official Date

State or Federal Agency and Bureau

In my opinion, the property ____ meets ____ does not meet the National Register criteria.

Signature of Commenting or Other Official Date

State or Federal Agency and Bureau

5. NATIONAL PARK SERVICE CERTIFICATION

I hereby certify that this property is:

___ Entered in the National Register
___ Determined eligible for the National Register
___ Determined not eligible for the National Register
___ Removed from the National Register
___ Other (explain):

Signature of Keeper Date of Action

6. FUNCTION OR USE

Historic:	Religion	Sub:	religious facility, ceremonial
	Landscape	Sub:	natural feature
	Transportation	Sub:	pedestrian-related
	Domestic	Sub:	camp
Current:	Religion	Sub:	religious facility, ceremonial
	Recreation/Culture	Sub:	outdoor recreation
	Landscape	Sub:	natural feature
	Transportation	Sub:	pedestrian-related
	Industry/Processing/ Extraction	Sub:	communications facility

7. DESCRIPTION

ARCHITECTURAL CLASSIFICATION: Other: Medicine Wheel

MATERIALS:
Foundation:
Walls:
Roof:
Other: Stone/limestone

Describe Present and Historic Physical Appearance.

INTRODUCTION

The Medicine Wheel/Medicine Mountain NHL District is one of the most significant and intact Native American sacred sites in North America (Boggs 1997; Brumley 1988:1; Kelly 1942) and can also provide nationally important archeological information. The district is significant under National Historic Landmark Criterion 1 as a Traditional Cultural Place in the areas of Religion and Ethnic Heritage (Native American) and under Criterion 6 in the areas of Aboriginal Historic and Precontact (Prehistoric) Archeology. The expanded 4,080-acre district, high in the Bighorn Mountains, includes the summit of Medicine Mountain, the Bighorn Medicine Wheel, an adjoining ridge, and other adjacent lands which constitute a complex of related features. The District's archeological remains, its ancient trail system, and traditional use areas relate to its primary function and significance as a spiritual and ceremonial place, with archeological resources incorporated in indigenous traditional practice. Medicine Mountain includes a set of exceptional and crucial cultural features that express a broad and longstanding spiritual and cultural tradition that continues to the present day. The period of significance for the district extends from approximately 4770 BCE (6720 BP) to the present. These dates reflect the earliest archeological remains through present day use by Native Americans. This dating is supported by the oldest radiocarbon-dated material in the Medicine Mountain NHL District, [redacted] dated to approximately 4700 BCE (6650 +/-70 BP, Early Archaic Period), located [redacted]). A [redacted] within the NHL may also date to this period.

The Medicine Wheel/Medicine Mountain National Historic Landmark (NHL) district has been used by many different tribes throughout the period of significance. Together, the components of the district represent the spiritual and cultural tradition of these tribes' beliefs, values, and practices. The associated tribes are drawn from a large geographic area of the United States and the beliefs, values, and practices associated with Medicine Wheel/Medicine Mountain reflect the entire period of significance, making the district a nationally significant example of a traditional cultural place.

The property is significant under National Historic Landmark Criterion 1 in the areas of religion and ethnic heritage for its association with nationally significant events identified with, and representative of, broad patterns in American history and from which an understanding and appreciation of those patterns may be gained. Many Native American groups recognize Medicine Wheel/Medicine Mountain as a sacred place of prayer and ceremony. Native American tribes offered homage here at this site, which also served as an essential navigational component of a trail corridor for people of the Northwest Plains, Great Basin and Plateau region. The site itself was known as a place of peace in times of war and as an area for gathering medicinal and ceremonial plants.

The Medicine Wheel/Medicine Mountain District meets National Historic Landmark Criterion 6, in the areas of precontact (prehistoric) and historic aboriginal archeology, for its high potential to yield information that would address nationally significant research topics regarding the medicine wheel phenomenon of the Northwest Plains. Archeological research has demonstrated that the cultural resources encompassed within the Medicine Wheel/Medicine Mountain District reflect a broad continuum of use by multiple aboriginal groups for thousands of years. The site is one of the few places in the United States where living traditions and the precontact past dynamically converge to inform and stimulate anthropological research.

Medicine Wheel/Medicine Mountain possesses a high level of historic physical and archeological integrity. Its landscape and cultural features provide the district with a special sense of place and evoke the spiritual feeling and sense of reverence integral to tribal ceremonial and spiritual practices.

Designated on 6 September 1970, Medicine Wheel National Historic Landmark embraced a 110-acre area including the Bighorn Medicine Wheel and immediately adjacent lands to the north and east.[1] The property was designated under Criterion 6 for its archeological significance as one of the largest and best-preserved medicine wheels in the country. In the four decades since the designation, the accumulation of substantial and additional information, including ethnohistoric and ethnographic data, has clarified the importance of the Medicine Wheel and its surrounding associated cultural sites to Native American communities, as well as a large body of archeological data resulting from fieldwork and research. The present nomination incorporates this new archeological and ethnographic information and expands the significance to include NHL Criterion 1 (broad patterns of United States history). This documentation also updates Criterion 6 and expands the property's significance to include Native American traditional cultural values that are integral to indigenous spirituality in the Northwest Plains. Finally, this nomination evaluates the resource as a traditional cultural place under Criterion 1. The period of significance is expanded to approximately 4770 BCE to the present (6720 BP to present).[2] The district boundary is increased to approximately 4,080 acres to include both nationally significant related archeological sites and nationally significant sites known to be associated with tribal ceremonial practices. The expansion reflects the recognition that the Bighorn Medicine Wheel was constructed in this precise location because of the importance of the mountain summit and its associated lands; the Wheel is viewed as a symbol or marker for the site. As Francis Brown, a member of the Northern Arapaho Traditional Elders notes: "The sacredness of Medicine Mountain involves it *in toto*, including all things left by the ancients (archeological items) and the natural setting which includes the trees, herbs, plants, etc." (Brown 1989). To reflect the expanded nature of the district which contains many associated sites, the name of the Landmark is being changed to the "Medicine Wheel/Medicine Mountain National Historic Landmark." The United States Forest Service (USFS) worked closely with seven consulting parties (including tribal and local government representatives) for over 15 years regarding the appropriate significance, boundary, and name for the NHL.

LOCATION AND SETTING

Medicine Wheel/Medicine Mountain NHL is located on the Bighorn National Forest, part of the USFS, in Big Horn County in north-central Wyoming, just 12 miles south of the Montana border (See Figure 1). The nearest town, Lovell, lies 25 miles to the west, and Sheridan is 46 miles east. The district is situated in the Bighorn Mountains, a range approximately 120 miles in length by 30 miles in width and bordered by the Powder River Basin to the east and Bighorn Basin to the west. The two basins are dramatically different in character, with the Powder River Basin characterized by a vast grassland with buttes, escarpments, mesas, and shallow canyons, whereas the Bighorn Basin receives less than seven inches of rainfall a year and features vegetation more like the Great Basin region (Frison and Wilson 1975, Frison 1991). Medicine Mountain is located in the northern Bighorn Mountains, where the mountain range runs roughly from northwest to southeast and is generally characterized by gently rounded rocky peaks, broad valleys, and dense stands of timber interspersed by open parkland. While dramatic changes of relief, vertical stratigraphy, and deep canyons mark the edges of the upthrust and the peripheral drainages, the crest of this section of the range is broad, open, and accessible.

Natural Environment: Geology, Soils, Climate

Geologically, the Bighorn Mountains stand in stark contrast to the surrounding region. The mountain range is an asymmetrical anticlinal uplift associated with the geological depression of the Powder River Basin. The range, therefore, exhibits almost vertical uplifts along the east and west range slopes, providing dramatic changes of relief. The formation of the range occurred during the Laramide Orogeny, beginning 70 million years ago. As the mountains rose, material eroding from the up-thrusting rocks deposited along the mountain flanks, contributing to the basin formations. The Bighorn Mountains reach an elevation of 13,165' at Cloud Peak. During the Pleistocene, the mountains were glaciated, creating a range top that is more like miles of rolling plateau than a mountain top (Frison and Wilson 1975).

The Bighorn Mountains have a Pre-Cambrian granite core overlain by Paleozoic and Mesozoic sedimentary rock. The sedimentary rock was deposited as marine sediments when the region was inundated by the epicontinental seas that once covered the interior of North America. The 500' to 800' thick Madison Limestone Formation overlies the 450' to 500' thick Bighorn Dolomite Formation; both formations were deposited in an aerated shelf environment (Ver Ploeg and DeBruin 1985: 6-7). The surface geology of Medicine Mountain is characterized by Ordovician dolomitic limestones of the Bighorn Formation. The dolomitic bedrock is finely crystalline in texture and contains nodules of chert. The limestone comprising the peaks and high ridges of this northern section of the mountain has weathered to form caves, deep crevasses, and other features characteristic of karst topography (a landscape shaped by the dissolution of layers of bedrock). In the valleys and canyons below, where water and geological forces cut into the core of the range, one finds granitic outcrops and boulders.

Soils on Medicine Mountain ridge are generally shallow and exhibit weak pedogenic (soil formation) development. Albanese (1989) noted sediments ranging in thickness from 10 to 25 centimeters in a test unit 240 meters northwest of the Medicine Wheel. He concluded that significant buried archeological sites were unlikely in the immediate vicinity of the Wheel due to the thin surface sediments, but also noted more developed soils in the numerous [redacted] features. A study locus in the vicinity of precontact site [redacted], exhibits thicker soils and hence the potential for buried cultural deposits, suggesting that other [redacted] locales may also exhibit pedogenic development conducive to the preservation of cultural deposits. Well developed [redacted].

The present climate in the Bighorn Mountains varies considerably with altitude and aspect. The surrounding semi-arid Powder River Basin and the arid to semi-arid Bighorn Basin are between 3,750' to over 5,000' in elevation with temperatures ranging from over 100 degrees Fahrenheit (F) in the summer, to -30 degrees F in the winter (Frison and Bradley 1980: 6). In the mountains, many peaks in the range rise to elevations of 10,000' or more with winter temperatures reaching -65 degrees F. Snow accumulates to depths of six feet with even deeper drifts. Summer temperatures in the mountains seldom exceed 80 degrees F. For information regarding the paleoclimatological record of the surrounding region, the reader is referred to the following resources: Currey 1990, Reider 1990, Eckerle 1989, Brookfield and Ahlbrandt 1983, and Leopold and Miller 1954.

Mammoth roamed the foothills of the Bighorns around 9,250 BCE (11,200 years before the present (BP)) as documented at the Colby site. The Colby site is the oldest known Clovis site in Wyoming. It contains Clovis points *in situ* along with the cached remains of a mammoth kill (Frison 1991, Frison and Todd 1986). Later, bison and sheep were plentiful, as the Powder River Basin's vast grasslands provided an abundant food source. Currently, wildlife on Medicine Mountain includes deer, elk, bighorn sheep, coyote, mountain lion, marmot, pika, mole, chipmunk, squirrel, weasel, kestrel, goshawk, red tail hawk, peregrine falcon, golden eagle, raven, mountain blue bird, Clarke's nutcracker, swift, and the bull snake (Medicine Wheel Report 2001).

ANTHROPOLOGICAL AND ARCHEOLOGICAL INVESTIGATIONS

Much scholarly attention has focused on the Bighorn Medicine Wheel, given its complexity in physical layout along with its accompanying aura of mystery. However, European American researchers' views of the Medicine Wheel as the paramount archeological and ethnographic curiosity on Medicine Mountain have detracted from understanding the importance of the larger cultural landscape that makes up Medicine Mountain.[3] Many Native American groups recognize this landform as a sacred place of ceremony and prayer. It is the locale for an interrelated, mutually supporting complex of medicine wheel, tipi and vision quest rock rings, stone-lined arrow effigies, cairn demarcated trails, specific places for prayer and ceremony, and both

long- and short-term camp sites. Recent ethnographic studies (Boggs 1997 and 2003) balance archeological considerations by defining contemporary cultural and historical values held by Native Americans regarding Medicine Mountain. For example, for many Native Americans groups it is the place where medicinal and ceremonial plants were, and continue to be, harvested and traded for plants from other sacred areas. According to a Northern Arapaho traditional elder, Medicine Mountain received its name because of the various ceremonial and healing plants found in the area (Francis Brown, Boggs 2003:4A:74-75, interviewed 6/7/98). Plants are collected east of the Medicine Wheel, between [redacted] toward the Wheel to make offerings and pray. The various cultural features, including plant collection locations, water sources, and other activity areas, supported ceremonial use of Medicine Mountain for thousands of years.

For more than 30 years USFS archeologists and archeological contractors have conducted archeological/land management surveys and limited site testing programs within the proposed Medicine Wheel/Medicine Mountain NHL District. Taken as a group, these surveys comprise a comprehensive cultural resources inventory of over 80 percent of the NHL (Matthews 2009). Based on what is now known regarding site distributions within the proposed NHL District, it is evident that Native American-related archeological sites are concentrated [redacted] the Medicine Wheel/Medicine Mountain NHL District. This notable concentration of sites is reflective of the [redacted] importance in the inter-regional social network of Native Americans who occupied the Northwest Plains, Great Basin, and Plateau regions for millennia.

GENERAL DESCRIPTION OF THE DISTRICT

The 4,080-acre nominated area encompasses approximately 5 miles of land east-west and 2.7 miles north-south. Medicine Mountain, at the south-central edge, dominates the site and is visible from most points within the district (Photographs 1, 2, 7, 8, and 17 and Figure 3). The 9,962' summit is above timberline and within the proposed NHL District. Extending northwest from the mountain is a prominent ridge where the Bighorn Medicine Wheel (48BH302) lies at an elevation of 9,640' (Photographs 10 through 15 and Figure 2). North of the ridge the land drops off toward the Porcupine Creek drainage, with the northern edge of the district about 800' below the elevation of the Medicine Wheel. Land to the north is heavily forested with one large open meadow lying about one mile northeast of the Wheel (Photograph 5); Duncum and Sheep Mountains lie further north. South of the ridge, the land falls sharply into the Five Springs Basin, with the southwestern corner of the district about 1,200' below the elevation of the Medicine Wheel (Photograph 3). A shorter ridge extends north-northwest of the Medicine Wheel (Photograph 6). West of this ridge and the Medicine Wheel is a broader, westward-sloping area at the western edge of the district that contains the upper reaches of Elk Springs and Tillets Hole Creeks (Photograph 9). The southern edge of this area is forested and features a rocky escarpment with jutting stone promontories that afford magnificent views south into the Five Springs Basin, southwest into the distant Bighorn Basin (Photographs 3 and 4 and Figure 2), and east-southeast toward Medicine Mountain (Photograph 1). Paul Francke (1895) wrote the earliest known published description of this setting:

> Some 180 miles away the main chain of the Rockies, snow-covered and looking blue in the distance, can be distinctly seen.... At our feet lay the Big Horn Basin. So clear and transparent was the atmosphere that all the northern affluents [sic] up the Big Horn River ... could be distinctly traced to their sources, looking like blue silk threads among the reddish-yellow coloring of the surrounding Bad Lands...The sublimity of color and effect combined in this view I have never found elsewhere. No wonder then that the former inhabitants of the country, the red men, used to come here to worship their deity.

The northeastern portion of the district slopes gently downward from southwest to northeast. The western portions of this area are forested, while the east portion consists of open meadows along Porcupine Creek. Medicine Mountain, two miles to the southwest, dominates the viewshed from this part of the District (Photograph 17).

USFS Road 12, a relatively narrow graded dirt road, provides primary access to the nominated area (Photographs 2 and 6). From its intersection with US Highway 14 Alternate at the southeast corner of the district, the road extends west-northwest, passing north of Medicine Mountain, to the western edge of the District. The road provides visitor access to a USFS visitor building, restroom, and parking lot (Photograph 19) about 1.6 miles from the highway. At the parking area, a dirt switchback road branches off USFS Road 12 to a Federal Aviation Administration radome facility on the summit of Medicine Mountain (Photograph 18). Five other small transmitter buildings with antennas are also located at the top surrounding the FAA facility.

Archeological sites within the district, in addition to the Bighorn Medicine Wheel (Photographs 10 through 15 and Figures 4 through 9), include numerous smaller rock circles (Photograph 16), trails, cairns, lithic scatters, tool processing sites, and encampments. The contributing archeological sites that fall within the period of significance of the NHL, represent Native American use and/or occupation of the site in association with the mountain; hold nationally significant research potential, and possess high archeological integrity. Furthermore, Native Americans have indicated that many of these sites have spiritual and cultural values. These sites are important indicators of the use and broader values of the area. Other features have been observed in the district but not yet evaluated; undoubtedly, additional resources may be discovered and evaluated in the future that will add to our understanding of this important locale. Based on a comparison with other similar high altitude landscapes in the vicinity of Medicine Mountain, the nominated area described herein exhibits uncommonly high site density.

CONTRIBUTING/NONCONTRIBUTING RESOURCES

This section provides descriptions of the identified contributing and noncontributing resources within the district. The Medicine Wheel/Medicine Mountain NHL District includes 43 resources—23 (53 percent) contributing and 20 (47 percent) noncontributing. Table 1 contains a list of all resources within the NHL District. The locations of resources are shown on the included sketch map (See Figure 11), while ethnographic areas are mapped in Figure 10 and photo locations are indicated on Figure 12).[4]

Contributing Resources

Resource 1, Medicine Mountain, Photographs 1 through 17 and Figures 1 through 9. The entire 4,080-acre site is counted as one contributing resource. A general description of the site is provided above; a description of contributing archeological resources follows. The significance of Medicine Mountain as a traditional cultural place (TCP) inheres in how the site is and has been used by members of various Native American tribes that recognize it as a sacred place. Although archeological sites and traditional-use areas are, for the most part, described separately, the distinction between these often becomes blurred because many of the archeological features present on Medicine Mountain are integral to indigenous spiritual and cultural practices. For instance, the Medicine Wheel itself (48BH302), [redacted] express values of significance important to the science of archeology, and also exhibit heritage values essential to the spiritual practice of traditional Native Americans. In many ways, it is best to conceive of such sites as multi-component, possessing not only the conventional significance of historic or precontact sites, but also ethnological dimensions.

Medicine Mountain constitutes a complex landscape with continuing Native American traditional uses employing and, in some cases, overlaying precontact sites. The sacred qualities assigned by Native Americans to such archeological features also extend to plants, rocks, geological features, and viewsheds associated with the landscape. Ethnographic and ethnohistoric studies undertaken by anthropologist James Boggs in the 1990s provided evidence of how various areas of the Medicine Mountain site are used for differing ceremonial and sacred purposes. Native American spiritual practices prescribe traditional uses in distinct portions of the district, including areas for staging, approach, ceremonies, prayer and vision questing, camping, and medicinal plant gathering. The functional aspects of the sacred structures on the mountain and its natural geographic features are oriented cosmologically in the same ways that the Plains Sun Dance Lodge is differentiated and oriented, with places for camping, prayer, and vision questing broadly the same for different tribes. These areas are identified and described below based on these reports (Boggs 1996, 1997 and 2003); their significance to Native Americans using the district and the participants and methodology underlying the ethnographic studies are discussed in Section 8. Figure 11 overlays ethnographic zones with archeological sites.

Areas in the eastern part of the district are and have been generally used for "staging" ceremonials--for purification rituals that prepare the practitioners to pray on the mountain and rituals that help them to re-enter or transition back to the secular world. [redacted] of the mountain's summit and the [redacted] are used for these purposes. The [redacted] Site ([redacted]), about [redacted] of the Medicine Mountain summit, consists of a [redacted] where tribal medicine men paint initiates and otherwise prepare them before they set off on the [redacted] (Boggs 2003:4A:54-55).

The mountain and the Medicine Wheel are approached from the east (Boggs 2003:4A:54). For Native Americans, including such tribes as the Arapaho, Blackfeet, Cheyenne, Crow, Eastern Shoshone, and Sioux, Medicine Mountain is a spirit lodge that literally houses important spirits. In many tribal traditions one approaches any spirit lodge, such as the sun dance or other ceremonial lodge, from the east. Therefore, trails used in ceremonies extend from the eastern flanks of Medicine Mountain toward the Bighorn Medicine Wheel. One [redacted]), for example, extends from the [redacted] of Medicine Mountain and is marked with a series of cairns. The gentle slope and fairly direct route of the trail are "important considerations as the trail is used by Indian Elders and often in the dark of night" (Boggs 1996:74). [redacted] a short distance to the south serves the same purpose.

The Bighorn Medicine Wheel on the ridge west of the Medicine Mountain summit is a principal ceremonial site within the district. Native Americans have described it as "the altar" for Medicine Mountain (Boggs 2003:4A:52). Healing ceremonies for sick individuals who have made the pilgrimage to the mountain are performed in the northeastern part of the district.

Areas for prayer, vision questing, and solitude are found along the district's southern and western rim, in the draw to the west and north of the Medicine Wheel, and on the Medicine Mountain summit. Rocky promontories west of the Medicine Wheel with a dramatic southwest view of the Five Springs and Bighorn basins are particularly well-suited for these purposes. Boggs (1996:59) noted that this area includes

> many stone alignments, cairns, vision quest sites, and places for prayer, seclusion, and meditation. It also contains . . . deep caves and crevasses into the limestone material of Medicine Mountain, and free-standing columns off the cliff face, in which animate forms may be discerned and the tops of which may be used for vision quests.

[redacted] is used for prayer and vision quests as well. The stand of trees immediately southwest of the Wheel

overlooking Five Springs Basin is also employed for prayers and the burning of cedar, sweetgrass, and sage; offerings are tied to tree branches in the grove (Boggs 1996:66). Offerings are also tied to or placed on the post and rope fence surrounding the Bighorn Medicine Wheel.

The upper reaches of the Elk Springs Creek drainage at the western edge of the district is known as a place for seeking solitude (Boggs 2003:Map4). Utilization of such areas emphasizes the importance of viewsheds to traditional Native American activities on the mountain. These views include the summit of Medicine Mountain from within the district, as well as outward-looking vistas of Five Springs Basin, the Bighorn Basin, and the drainage and distant mountain ranges to the north.

Camps are set up well away from ceremonial sites to limit their intrusiveness. Generally, [redacted], councils, and prayer places lie west of the Wheel where they will not come between the rising sun and the monument itself" (Boggs 2003:4B:6). [redacted] are also found on the [redacted] of the Wheel. Areas northeast of the mountain's summit in the Porcupine Creek drainage house the base camps for the practitioners who will be participating in ceremonies and where their relatives and support people stay.

Within the nominated area, medicinal plants are principally gathered along Porcupine Creek and adjacent meadows in the northeastern corner of the district. Along the southern escarpment, cave and crevasse locations retain moisture year-round and provide a suitable habitat for certain plants, and "aromatic medicinal plants have been noted on the dry southwest slopes below the rim above Five Springs Basin" (Boggs 1996:80-81). The plants collected by Native Americans are used in sacred ceremonies or traded for plants gathered in other sacred places.

Resource 2, Bighorn Medicine Wheel, Photographs 10 through 15 and Figures 4 through 9. The Bighorn Medicine Wheel, at elevation 9,640', is situated on the exposed, slightly sloping limestone surface of the prominent northwestern ridge of Medicine Mountain, whose peak is about 300' higher. Historically, as today,[5] people from many tribes of the Northwest Plains (east of the Bighorn Range) and Great Basin traveled to Medicine Mountain to perform ceremonial rituals as well as solitary prayer (Dorsey 1905; Lowie 1918; Wilson 1981). Native American ethnographic accounts refer to the Medicine Wheel as the "altar" for the Medicine Mountain complex, illustrating the important role that the Wheel plays in ceremonial and spiritual functions (Boggs 2003:4A:52). Native Americans and other visitors leave offerings on the fence enclosing the Wheel, including handkerchiefs, coins, pieces of cloth, bone, pouches, feathers, plants, stones, and beads.

Grey (1963:30, 32) described the Bighorn Medicine Wheel as follows (See Figure 9):

> [The Wheel] is a roughly circular pattern of stones about 82 feet in diameter, surrounding a central stone cairn about 12 feet in diameter. The stones are laid upon the surface of the ground. In the center of the pattern is a hollow oval cairn of rock from which 28 radial lines extend to a peripheral circle. Around and near the peripheral circle are located six more cairns. Five of these are exterior to the main circle, while one is mostly interior. One of the external cairns is removed from the peripheral circle about 12 feet along an extension of one of the radial lines. Each of the cairns is hollow, and is in reality a more or less heavily walled circle of small size. The peripheral circle and radial lines consist of single courses of stone for the most part, while the cairns are generally several courses in height. On the east side of the peripheral circle there is a slight break in the lines of stones.

The cairns around and near the peripheral circle of the Medicine Wheel are considered by Brumley (1988:69) to be ancillary features. Early photographs and accounts indicate a rock slab roof or covering over at least one of the enclosures, which have openings of varying orientation. These enclosures closely resemble Northwest Plains vision quest structures described by several researchers (Fredlund 1969; Horse Capture 1980; Connor

1982; Burley 1985; Dormaar and Reeves 1993). Other rock features were originally located outside and inside the vicinity of the Bighorn wheel. Subsequent disturbances have apparently removed many of these features, and visitors have created new structures over succeeding decades. The interior of the central cairn was vandalized at some time during the early 20th century (Grey 1963:32; Hunter and Fries 1986:7; Wilson 1981). Nonetheless, the Bighorn Medicine Wheel, including the ancillary rock features along and immediately outside the wheel, has remained intact for the most part and retains its high level of integrity of design, setting, materials, workmanship, location, feeling, and association (Grey 1963:28, 32; Wilson 1981:350).

Builders. Some early interpretations of the Bighorn Medicine Wheel suggested that the site was constructed by Aztecs, Mound Builders, Russian explorers, French explorers, Lost Tribes of Israel, gnomes, giants, and prospectors (Wilson 1981). Wilson observed these theories seemed to go out of their way to avoid the obvious, crediting anyone but Northwest Plains Indians. He noted, "that all elements of the Medicine Wheel--rough circle, spokes, cairns, and the opening to the east -- all of these elements fit perfectly within the symbolic framework of the Plains Indians" (Wilson 1974:3; see also Wilson 1981: 351). Printed references to the Bighorn Medicine Wheel date back to at least 1895, when it was mentioned in an article in *Forest and Stream* magazine (Grinnell 1922:299; Grey 1963:27). Since then, anthropological scholarship concerning the Bighorn Medicine Wheel has turned away from questions about the identity of its designers to focus exclusively on the original purpose and function of the structure in the precontact era (Liebmann 2002). Early anthropological studies tended not to offer any definitive explanation for the construction of this medicine wheel. Simms (1903) published the first detailed description of the site in an early issue of *American Anthropologist*, but was unable to reach any conclusions concerning the original function of this structure. Grinnell conducted further investigations in 1922, determining that this medicine wheel bears a great similarity to the Cheyenne Medicine or Sun Dance Lodge (Grinnell 1922). Grey also notes similarities to the Cheyenne Medicine Lodge but concluded that "neither the identity of the builders nor the function of the structure could be determined" (Grey 1963:27). Hunter and Fries (1986) and Wilson (1981) document several accounts relating to the Bighorn Medicine Wheel in Crow mythology and oral history. Some accounts tell of vision quests at or in the immediate vicinity of the Bighorn Medicine Wheel (Grinnell 1922:307-309).

Dating. The dating of the Bighorn Medicine Wheel is very problematic, with estimates ranging from a few hundred years to more than 3,000 years (Fries 1980; Grey 1963:36-37). Earlier dates of construction have often been favored in past scholarship, largely due to reports given to investigators of the site by native informants in the late nineteenth and early twentieth century (Grinnell 1922; Simms 1903). These early ethnographic reports resulted in the assumption that the Bighorn Medicine Wheel possessed great antiquity. More recent hypotheses suggesting an early date of construction are based on the patterns of soil deposition on Medicine Mountain (Wilson 1981:364), but remain unverified by scientific testing. [redacted] have been found in association with the Bighorn Medicine Wheel; however, no samples suitable [redacted] have been recovered.[6] The only reliable date gleaned from any part of the Bighorn Medicine Wheel thus far is one dendrochronologic sample derived from wood incorporated into [redacted]. This sample's latest growth ring dates to AD 1760 (Grey 1963:36; Wilson 1981:364).

Researchers generally believe that the Medicine Wheel is a late precontact composite feature that was constructed and modified over a period of several hundred years (York 1995). Four [redacted] samples recovered from within [redacted] feet of the Medicine Wheel have produced dates ranging from the modern era (post-1950) to ca. 4770 BCE (6720 BP). Grey (1962) reportedly encountered a [redacted]; early nineteenth-century [redacted] have also been recovered [redacted]. [redacted] recovered from the [redacted] of the Medicine Wheel derive from [redacted] of Shoshone and Crow manufacture (Grey 1962, 1963; York 1995). Although these diagnostic artifacts and radiocarbon dates fail to decisively explain the construction and use of the Medicine Wheel, this and other

archeological evidence clearly indicates that the Medicine Wheel/Medicine Mountain NHL has been visited by Native Americans for nearly 7,000 years.

Design. Archeological investigations of the Wheel took place in 1958 and 1973. The 1958 excavations by the Wyoming Archeological Society revealed a number of interesting facts. Excavation indicated that the [redacted] One theory suggests that this anthropogenic [redacted] served as a [redacted], a theory bolstered by the fact that a few small [redacted] (Grey 1963:36). Excavations in 1973 (Wilson 1981) provided conclusive evidence that the Bighorn Medicine Wheel is a composite structure, with the central cairn and at least some of the outer cairns constructed earlier than the rim-and-spokes aspect. Wilson suggests that the central cairn predates the rim-and-spokes structure by "as many as a few hundred years" based on soil accretion (Wilson 1981:364).

The 1970s also witnessed the introduction of the theory that cairns of the Bighorn Medicine Wheel were astronomically aligned (Eddy 1974, 1977). The focus of this archeo-astronomical scholarship turned away from the rim and spokes of the Bighorn Medicine Wheel, concentrating instead on the alignment of the cairns. Eddy's hypothesis inspired a decade of further research (Cornell 1981; Fries 1980; Kehoe and Kehoe 1977a, 1977b; Robinson 1980); however, subsequent criticism cast considerable doubt on the notion that astronomical alignments were anything more than coincidental (Haack 1987a, 1987b; Ovenden and Rodger 1981; Zuiderwijk 1984). As Mirau noted, the astronomical hypothesis "has been widely discussed but . . . is not well supported by ethnographic, historical, or archeological data" (Mirau 1995:199).

Resource 3, [redacted], *Medicine* [redacted], *Photograph* [redacted]. This site is the source of the oldest radiocarbon-dated material in the Medicine Mountain NHL: [redacted] dated to approximately 4700 BCE (6650 +/-70 BP, Early Archaic Period) (Keller 1993). This site extends [redacted] of the Medicine Wheel along a [redacted]. It is a complex site that encompasses [redacted]). The site is comprised of at least [redacted]

[redacted] is also on the site (Uhl 1980: 91). [redacted]

[redacted]. Also located at [redacted]

Three radiocarbon dates are derived from [redacted]: a [redacted] to approximately 1530 CE (420+/- 80 years BP, Late Precontact Period); a [redacted] dated to approximately 965 CE (970+/-120 BP, Late Prehistoric Period); and the aforementioned [redacted] dated to approximately 4700 BCE (6650 +/-70 BP, Early Archaic Period) (Keller 1993). York (1995) believes that many of the [redacted] probably relate to ceremonial activities conducted by contemporary Native Americans. Indeed, Native American informants have identified the site as a ceremonial place. Reher and Wedel (1987: 3) also identify [redacted] where major ceremonies took place, noting that "an especially distinctive [redacted] are in fact among the best candidates for a [redacted]. . . . this cluster of features is unusually ordered in [redacted], all of which are characteristics sometimes cited in ethnographic accounts for [redacted] where a major ceremony was to take place." Native Americans interviewed by Boggs identified this [redacted] as an area used for [redacted] solitude, and prayer (Boggs 1997 and 2003). Archeological investigations of [redacted] can address research topics specific to [redacted]medicine wheel association.

Resource 4, [redacted]. This site is located [redacted] of the Medicine Wheel. It is comprised of [redacted]. Some of these features are [redacted] (Reeves 1991). York (1995) commented that many of the potential ceremonial features at [redacted] are probably contemporary phenomena. Reeves (1991) stated that the [redacted] must have been "constructed between the mid 1970s and mid 1980s, as it is absent from mid 1970 aerial photography." Regardless of origin, the [redacted] has been incorporated into Native American ceremonial practices in the vicinity of the Medicine Wheel. Located on the same [redacted], this area is also used for camping, solitude, and prayer, according to Native Americans interviewed by Boggs (1997 and 2003). Archeological investigations of [redacted] can address research topics specific to [redacted]/medicine wheel associations

Resource 5, [redacted]. A portion of this [redacted] was constructed by the USFS during the 1920s. The [redacted] are known to exist at precontact sites in the southwestern US; however, no analogues have been documented for the Northwest Plains of Canada and the US. Some [redacted] that are also of unknown antiquity. [redacted] overlaps with the [redacted]. Crow Elders John Hill and Art Big Man identify both [redacted] as utilized in the [redacted] to the Medicine Wheel (Boggs 1997 and 2003).

Resource 6, [redacted]. This Late Archaic period site consists of a [redacted]), the latter of which [redacted] the Medicine Wheel. Diagnostic artifacts recovered from this site include a [redacted] is interpreted as an [redacted] that was in use for thousands of years, and the site is in direct association with the [redacted]. Archeologists have determined that the [redacted] is intact, and consequently the site holds potential for addressing such research topics as [redacted] activities on Medicine Mountain during the Late Archaic and Late Precontact periods.

Resource 7, [redacted]. This site is located at the [redacted] the Medicine Wheel [redacted], approximately [redacted] the Medicine Wheel. Test excavations retrieved [redacted] contains components of the Middle Archaic, Late Archaic, and Late Precontact periods. An estimated [redacted] is exposed in a [redacted] is located approximately [redacted]. [redacted] is interpreted as an [redacted] utilized for thousands of years. Archeologists have determined that the [redacted] (Matthews 2009) and consequently this site holds potential for addressing research questions related to long-term use of Medicine Mountain as well as methods adapted for high altitude occupations.

Resource 8, [redacted] This extensive [redacted] is located on an [redacted] of the Medicine Mountain [redacted] and approximately [redacted] the Medicine Wheel. Grant (1981) noted indications of [redacted] activity, especially in the [redacted] portion of the site, as well as indications of [redacted] portions of the site. The site is comprised of an extensive [redacted]. The artifact assemblage and associated features represent a [redacted]

[redacted] than is typical at Medicine Mountain. A [redacted] the Medicine Wheel. Native American informants identify this site as a ceremonial place. [redacted] permit addressing research topics specific to high altitude adaptations. In addition to the [redacted] remains, [redacted] (Uhl 1980) is located within the boundaries of [redacted]. Uhl noted the presence of a [redacted].

Resource 9, [redacted]. This prehistoric [redacted] is located on a [redacted], and approximately [redacted] the Medicine Wheel. It is comprised of [redacted]. Reeves (1991:4) is not certain that the [redacted] but rather are of recent construction for an unknown purpose. He also notes that the [redacted] on the Medicine Wheel. Native American informants have identified [redacted] as a ceremonial place (Matthews 2009). [redacted] of this site is needed in order to possibly determine its period(s) of use and function.

Resource 10, [redacted]. This precontact [redacted] is located on Medicine Mountain [redacted] the Medicine Wheel (Morter and Deaver 1982). It is comprised of a [redacted] to the Medicine Wheel. Some of the [redacted] noted on this site are of [redacted], suggesting that the site occupants [redacted]. It is presently unknown whether or not [redacted] exist at this site. [redacted] is needed in order to possibly determine its period(s) of use.

Resource 11, [redacted]. This is a multi-component Native American site located approximately [redacted] the Medicine Wheel and adjacent to an [redacted]. It is comprised of a [redacted] York (1995) noted that "such precision is not evident for the Medicine Wheel or any other Medicine Mountain features that are generally accepted as "ancient" and Native American in origin." He theorized that the feature originated with a 1934 Civilian Conservation Corps tent camp. However, Laurent (1989) was informed by Crow Elder John Hill and Shoshone elder Haman Wise that the [redacted] holds ceremonial significance for the Crow in that it is used to guide initiates in the performance of necessary rituals and prayers. Regardless of the origin of the feature, it has been incorporated thoroughly into contemporary traditional practice as an important [redacted] to the Medicine Wheel (Boggs 1997 and 2003).

Resource 12, [redacted]. This is an ancient [redacted] that was apparently used to [redacted] Medicine Wheel. Francke (1895:269) provides the earliest historic account of the [redacted]. During a hunting trip to Medicine Mountain he observed, "The [redacted] Big Bald Mountain, then in [redacted], and finally [redacted] Medicine Mountain." Reher and Wedel (1987:7-13) believe that this [redacted] is in direct association with the Medicine Wheel (48BH302): [redacted] "was used by the builders, and the people who went to use the Medicine Wheel…this part of the [redacted] includes the so-called [redacted] which consists of several [redacted] located to the immediate [redacted] the Medicine Wheel. Different [redacted] have been observed and documented by Simms (1903), Grinnell (1922), Grey (1963), Wilson (1973), Reher and Wedel (1987), Laurent (1989), Reeves (1991), Platt (1992), and York (1995). Many [redacted] have been destroyed by [redacted] activities and the superimposition

of [redacted]. Native American informants indicate that this [redacted] ceremonial meaning (Matthews 2009). Ethnographic studies have identified it as one of the two [redacted] the Medicine Wheel used by Native American practitioners (Boggs 1997 and 2003).

Resource 13, [redacted]. Laurent (1994) recorded this precontact [redacted] located on the [redacted] of Medicine Mountain approximately [redacted] the Medicine Wheel. He recorded [redacted] the same material. [redacted] is interpreted as a [redacted]. It is presently unknown whether or not [redacted] exist at this site.

Resource 14, [redacted]. This site is located on the [redacted] of Medicine Mountain approximately [redacted] the Medicine Wheel. It is comprised of a [redacted] that may date to the Early Archaic period. [redacted] have also been reported; Reeves (1991) believes the [redacted] are very recent features that are not Native American in origin. Northern Cheyenne Elder Bill Tallbull and Northern Arapaho Elder Francis Brown identified this site as a place of ceremonial meaning. This site is located along the [redacted] in an area that Native Americans report is used for vision questing, prayer, and solitude (Boggs 1997 and 2003). Archeological testing of this site is required in order to possibly determine its approximate [redacted], but this site has a good potential for having significant [redacted].

Resource 15, [redacted]. Located on [redacted], the site is approximately [redacted] the Medicine Wheel. According to Zeimens (1977) and Laurent (1994), this site was originally recorded in 1960 by R. C. Bentzen of the Wyoming Archeological Survey (Sheridan Chapter). Bentzen reportedly found [redacted] at the site, which suggest a Late Precontact affiliation. The site is comprised of Late Precontact period [redacted] in association with [redacted] Zeimens noted [redacted] eroding from a nearby [redacted] Laurent (1989) identified [redacted] at the site, and also observed additional [redacted] exposed by erosion; he suggested that the site's most significant feature is [redacted].

Resource 16, [redacted]. Consisting of a well-defined [redacted] made of [redacted] by freeze-thaw action, this site is located approximately [redacted] the Medicine Wheel. Wilson (1983) conducted test excavations at the site in 1973. He recovered [redacted] from a test excavation unit, but the [redacted] was of insufficient amount for conducting [redacted]. The test unit also yielded numerous [redacted]. Some of the [redacted] were made from [redacted] derived from the Powder River Basin over [redacted]. Based on several lines of evidence, Wilson concluded that [redacted] is a Late Plains Archaic site. Ethnographic studies by Boggs indicated that this area of the landscape was used for prayer, vision questing, and solitude (Boggs 1997 and 2003).

Resource 17, [redacted]. Recorded by Morter and Deaver (1982), this site is a precontact [redacted] located about [redacted] the Medicine Wheel on [redacted]. Comprised of [redacted] (Matthews 2009). Within the context of the Medicine Wheel/Medicine Mountain NHL, it was determined that [redacted] fall within the period of significance and represent precontact use and/or occupation of the site in association with the mountain, and are thus considered to be contributing.

Resource 18, [redacted]. This site is comprised of [redacted] (Matthews 2009). Within the context of the Medicine Wheel/Medicine Mountain NHL it was determined that [redacted] fall within the period

of significance and represent precontact use and/or occupation of the site in association with the mountain, and are thus considered to be contributing.

Resource 19, [redacted]. Recorded by Morter and Deaver (1982) during survey work for the proposed Tillets Hole Timber Sale, the site consists of a [redacted]. The site is located on [redacted] near site [redacted] the Medicine Wheel.

Resource 20, [redacted]. Originally recorded by Laurent (1989), this site is located on a [redacted] consists of a [redacted] measures approximately [redacted]. Laurent speculated about the possible ceremonial aspects of the site, prompted by the presence of the [redacted], which are sometimes associated with [redacted] religious practices. In 1995 Laurent revisited the site with Northern Cheyenne Elder Bill Tallbull, who was unsure of the site's potential ceremonial significance (York 1995).

Resource 21, [redacted] This [redacted] is located on the [redacted] Medicine Mountain. The [redacted], correlates with Reher and Wedel's (1987) Medicine Wheel [redacted]. Laurent (1989) subsequently recorded the [redacted] identified it as the probable remains of the [redacted] observed by Simms (1903) and Grinnell (1922). The [redacted] and may have served as a [redacted] at one time. There is little evidence of [redacted].

Resource 22, [redacted]. First recorded by Laurent (1994), this site is a precontact [redacted] located on [redacted] approximately [redacted] the Medicine Wheel. The site contains [redacted] and consequent disturbance of [redacted]. This site potentially [redacted] deposits.

Resource 23, [redacted]. This site consists of a [redacted]. In 1994 one prehistoric [redacted] were collected (Laurent, 1994).

Noncontributing Resources

The 20 (47 percent) noncontributing resources contained within the Medicine Wheel/Medicine Mountain NHL District are described below. With the exception of the FAA Radome and its Support Building (Resources 31 and 32) and US Forest Road 12, the noncontributing resources are generally small scale and unobtrusive. The five small transmitter facilities are clustered close to the FAA facility and are not visible to the naked eye from the Bighorn Medicine Wheel. Archeological sites were determined to be noncontributing either because they did not represent Native American use and/or occupation of the district in association with the mountain, or did not hold significant research potential due to a lack of archeological integrity. The non-archeological resources are all classified as noncontributing because they are not associated with the historic themes under which this district is considered significant.

Resource 24, 48BH809. This site is a corral associated with 20th century Euro-American ranching activities. It may or may not be eligible for the National Register under another context.

Resource 25, 48BH814. Morter and Deaver (1982) recorded the remains of a wood fence that intersects the [redacted] the Medicine Wheel. Laurent (1989) later identified the feature as a wood livestock drift fence. This fence is probably related to

early to mid-twentieth-century Euro-American ranching activities. It may or may not be eligible for the National Register under another context.

Resource 26, 48BH1390, Dayton-Kane Road, Crystal Creek Wagon Trail. Currently underneath the old alignment of US 14 Alternate, this feature is considered non-contributing due to lack of integrity.

Resource 27, 48BH1392. This wood pole is possibly associated with a now-abandoned power line.

Resource 28, 48BH1829. Consisting of a series of rock cairns, this site is located on the southwest ridge of Medicine Mountain, approximately one mile southeast of the Medicine Wheel. The cairns correspond to features MM-1 through MM-5, which were identified by Reeves (1991) and documented by Laurent (1994). The cairns are believed to date to early 20th century ranching activities and were used as fence post supports (York 1995). It may or may not be eligible for the National Register under another context.

Resource 29, Visitor Building, 2000s, Photograph 19. This one-story gambrel roof USFS Visitor Building faces southeast and is located on USFS Road 12, about 1.6 miles west-northwest of its intersection with US 14 Alternate and 1.3 miles southeast of the Medicine Wheel. The building has an off-center door, a simulated divided-light window, an open porch, and walls clad with log siding. A wood flagpole and two interpretive panels are located a short distance to the south.

Resource 30, Restroom, 2000s, Photograph 19. Located a short distance east of the Visitor Building, this USFS restroom faces southwest and has two restroom units. The one-story gabled roof building has an open porch, log siding, and metal roofing.

Resource 31, Restroom, 2000s, Photographs 7 and 11. This small one-story USFS restroom is located on the east side of USFS Road 12, approximately 265' north of the Medicine Wheel. The gable roof building has simulated vertical board walls. A narrow gravel path links the restroom to the road.

Resource 32, Federal Aviation Administration Radome, 1963, Photograph 18. The most visible noncontributing resource within the nominated area is the Federal Aviation Administration (FAA) Radome on the summit of Medicine Mountain at an elevation of 9,969'. The 60' high golf-ball-shaped structure consists of a bubble containing equipment associated with the air traffic control system; it is slightly elevated on a steel base (Billings Gazette 1963).

Resource 33, Federal Aviation Administration Support Building, 1963, Photograph 18. Associated with the radome is a one-story, irregularly-shaped support building that includes an equipment section (96' x 36'), staff quarters (60' x 36'), and a garage (30' x 19'), all joined by enclosed walkways. The building has a flat and gabled roof and walls clad with vertical metal siding.

Resource 34, Communications Transmitter (Facility 2), 1970s-early 1980s. This small 9' x 6' one-story US Forest Service transmitter building has fiberglass walls, a 25' pole and 20' lattice antenna, and is located about 100' southeast of the FAA Radome.

Resource 35, Communications Transmitter (Facility 3, west), 1970s-early 1980s. This small 10' x 8' one-story transmitter building, operated by Rocky Mountain Oil Field, has concrete walls and six 20' antennas, and is located 300' northwest of the FAA Radome.

Resource 36, Communications Transmitter (Facility 3, south), 1970s-early 1980s. This small 18' x 9' one-story transmitter building, operated by Rocky Mountain Oil Field, has concrete walls and six 20' antennas, and is located 300' southwest of the FAA Radome.

Resource 37, Communications Transmitter (Facility 4), 1970s-early 1980s. This small 16' x 12' one-story Communications Technology transmitter building has frame walls, a 30' antenna, and is located 500' west of the FAA Radome.

Resource 38, Communications Transmitter (Facility 5), 1970s-early 1980s. This small 18' x 12' one-story Billings Mobile transmitter building has metal walls, a 40' antenna, and is located 300' northwest of the FAA Radome.

Resource 39, US Forest Service Road 12 and its branches, 1940s, Photograph 2, 6, 9, and 10. This narrow unpaved road begins at US 14 Alternate at the southern edge of the site and extends through the area for about 4.3 miles in a west-northwest/east-southeast direction. It provides access to the Medicine Wheel and continues outside the nominated area to the northwest. A 0.7-mile branch (USFS Road 117) with switchbacks serves the FAA Radome facility. Branches in the western part of the nominated area include: road 118 (0.8 miles); road 12.01 (0.6 miles); and road 114213 (0.5 miles). It may or may not be eligible for the National Register under another context.

Resource 40, US Forest Service Road 133, 1940s. This unpaved road begins at USFS 13 east of Porcupine Campground and extends northwestward. About 0.5 miles of the road crosses the northeastern portion of the nominated area. It may or may not be eligible for the National Register under another context.

Resource 41, US Forest Service Road 137, 1940s. This unpaved road begins at USFS 13 east of Porcupine Campground and extends northeastward. About 0.4 miles of the road crosses the northeastern portion of the nominated area. It may or may not be eligible for the National Register under another context.

Resource 42, Bucking Mule Falls Trail, c. 1960. Bucking Mule Falls Trail extends from USFS Road 137 northwesterly down the Porcupine Creek drainage. A small section (0.7 miles) of the trail is located in the northeastern portion of the nominated area. It may or may not be eligible for the National Register under another context.

Resource 43, Tillets Hole Trail, c. 1960. Tillets Hole Trail extends east and north from USFS Road 12.01 and then continues down the Tillets Hole Creek drainage. A small portion (0.5 miles) of the trail is located in the northwestern portion of the nominated area. It may or may not be eligible for the National Register under another context.

INTEGRITY

The expanded Medicine Wheel/Medicine Mountain NHL District possesses a high level of archeological and visual integrity. The location of this sacred site is unchanged. The broad design of the complex of features within the district remains fundamentally the same, with different parts of the district, such as traditional use areas, still utilized for different purposes. Likewise, the overall design of the Medicine Wheel is remarkably intact, as evidenced by comparing Grinnell's 1922 plan with that of Grey's 1963 drawing. The contributing components of the district maintain integrity of materials, chiefly consisting of unprocessed materials gathered from the immediate vicinity, such as the limestone utilized for the Medicine Wheel and other rock alignments. Modifications to the district as part of the continued use of the site for spiritual purposes by Native Americans are not considered negative impacts to its integrity.

The setting is one of the key aspects of the district's integrity and is significant for its continued use as a sacred area. The massive, treeless summit of Medicine Mountain dominates the area as it has since time immemorial and is visible from all corners of the nominated area. The broad, open, high ridge to the west affords long and

expansive views of the surrounding landscape, and the vistas to the south and southwest from a rocky escarpment provide views into the depths of the Five Springs Basin and the Bighorn Basin, as well as distant mountain ranges beyond. The south escarpment itself features rocky promontories eroded into fantastic shapes. A different view is provided to the north, with the forested Porcupine Creek drainage in the foreground and Duncum, Sheep, and other mountains in the distance. The Bighorn Medicine Wheel is but the largest of numerous rock alignments and tipi rings readily visible in the western part of the district. The principal alteration to the setting is the presence of a 1963 FAA radar facility on the summit of Medicine Mountain, about 1.25 miles southeast of the Medicine Wheel. The radome is visible from much of the district and areas surrounding the district; however, when considering the immensity and scale of the 4,080-acre district, it is a small element. The main road is a narrow, graded dirt road extending through the nominated area. A post and rope fence that encloses the Medicine Wheel serves as protection for the resource; the first such fence was built in 1925. Forest Service buildings (a visitor building and two restrooms) and a parking lot located 1.5 miles southeast of the Medicine Wheel are small and set into trees or down a slope to minimize their impact on the setting.

Integrity of feeling is also of fundamental importance for the district. Medicine Mountain's combination of landscape and cultural features provide the district with a special sense of place and evoke the spiritual feeling and sense of reverence integral to tribal ceremonial and spiritual practices. This combination of elements makes it evident why the builders of the Medicine Wheel constructed it in this location and why the site continues to be considered one of the most sacred in North America. Visitors today are left with the same feeling experienced by National Park Service Regional Geologist Carroll H. Wegemann (1941), who wrote about standing in the Wheel on the night of a full moon in August 1937: "The stillness and solitude, the moonlight and the ancient stone circles where men long since dead prayed to their gods made an impression which he will always remember."

Many diverse Native American tribes and individuals continue to regard the Medicine Mountain complex as one of the most important sacred sites in the nation, and it continues to draw those practicing indigenous spiritual ceremonies. This traditional cultural place exhibits a high level of integrity of association. Research demonstrates that traditional ceremonial practices have been continuous, despite the suppression of American Indian religious expression following their confinement to reservations, and toward the end of the twentieth century witnessed a resurgence as a result of the passage of the American Indian Religious Freedom Act of 1978. Ethnographic interviews (see Boggs 2003) clearly indicate that members of various Northwest Plains and other tribes continue to visit the mountain for traditional religious and cultural purposes. Today's practitioners directly relate the contemporary sacredness of the Mountain back to the Native American Period—the vast stretch of time before the coming of the European Americans (Boggs et al. 1999).

The Medicine Wheel/Medicine Mountain NHL District conveys its national level of archeological significance in large part though a remarkable configuration of scientifically based data sets that complement its aspects of integrity. Specifically regarding its integrity, archeological deposits are largely intact and complete due to minimal impact caused by natural processes and recent/non-Native disturbances. Archeological features and artifacts recorded to date are temporally diagnostic and functionally defined, and are reflective of Native American inter-region utilization of Medicine Mountain for thousands of years. Design layout of surface features such as medicine wheels, tipi rings, and activity areas are largely intact. Culturally utilized topographic features (e.g., ridge tops and drainages), patterns of native vegetation, and cultural landscape are intact, thereby imparting a sense of feeling and association with past and present Native American spiritual and ceremonial activities at Medicine Mountain.

8. STATEMENT OF SIGNIFICANCE

Certifying official has considered the significance of this property in relation to other properties:
Nationally: X Statewide: ___ Locally: ___

Applicable National Register Criteria: A X B__ C____ D X

Criteria Considerations (Exceptions): A__ B__ C__ D__ E__ F__ G ___

NHL Criteria: 1, 6

NHL Theme(s): I. Peopling Places
3. migration from outside and within
II. Creating Social Institutions and Movements
3. religious institutions

Areas of Significance: Religion
Ethnic Heritage (Native American)
Archeology/precontact (prehistoric)
Archeology/historic aboriginal

Period(s) of Significance: Approximately 4770 BCE to present (6720 BP to present)

Significant Dates: N/A

Significant Person(s): N/A

Cultural Affiliation: Arapaho, Blackfeet, Cheyenne, Crow, "Sheepeater" Indians, Eastern Shoshone, Sioux; In addition to the tribes listed above, members of over 70 additional tribes have visited the Medicine Wheel and often conduct ceremonies there (Medicine Wheel Monitoring Report 2001).

Architect/Builder: Unknown

Historic Contexts: I. Cultural Developments: Indigenous American Populations

A. The Earliest Inhabitants
9. Archaic Adaptations of the Great Basin
11. Archaic Adaptations of the Plains
16. Archaic Adaptations in Montana Regions

B. Post-Archaic and Pre-Contact Developments
6. Great Basin Hunters and Gatherers
10. Plains Hunters and Gatherers
18. Post-Archaic Adaptations in Montana (High-Altitude) Regions

C. Precontact (Prehistoric) Archeology: Topical Facets
10. Precontact (Prehistoric) Religion, Ideology, and Ceremonialism

D. Ethnohistory of Indigenous American Populations
1. Native Cultural Adaptations at Contact
g. Native Adaptations to Great Basin Environments
h. Native Adaptations to Plains Environments
6. The Myth of the Vanishing Native
a. Ethnic Revitalization
1. Changing Tribal Statuses, Political, and Religious Systems

SIGNIFICANCE

The Medicine Wheel/Medicine Mountain NHL District constitutes one of the most important and well-preserved Native American sacred sites in North America (Boggs 1997; Brumley 1988:1; Kelly 1942). The district is nationally significant under National Historic Landmark Criterion 1 as a traditional cultural place in the areas of Religion and Ethnic Heritage (Native American) and under Criterion 6 in the areas of Aboriginal Historic and Precontact (Prehistoric) Archeology. The expanded 4,080-acre district, high in the Bighorn Mountains, includes the summit of Medicine Mountain, the Bighorn Medicine Wheel, an adjoining ridge, and other adjacent lands embracing an integrated complex of features. The district's archeological remains, its ancient trail system, and traditional use areas relate to its primary function and significance as a spiritual and ceremonial place, with archeological resources incorporated in indigenous traditional practice. Medicine Mountain encompasses a set of significant cultural features that express a broad and longstanding spiritual and cultural tradition that continues to the present day. The period of significance for the district extends from approximately 4770 BCE (6720 BP) to present, reflecting the earliest date of archeological remains through continuing use to the present by Native Americans. This dating is supported by the oldest radiocarbon-dated material in the Medicine Mountain NHL District, a [redacted] dated to approximately 4700 BCE (6650 +/-70 BP, Early Archaic Period), located [redacted] the Medicine Wheel at site [redacted] (Keller 1993). A [redacted] within the NHL may also date to this period.

Initial recognition of the site focused on the archeological significance of the Bighorn Medicine Wheel, which was listed in the National Register of Historic Places in 1969 and designated a National Historic Landmark the following year. Of the many "medicine wheels," the Bighorn Wheel is certainly the best known and the best preserved. Its high elevation mountain setting is also unique (York 1995: 33). In fact, it is the type site from which the term "medicine wheel" originates. The Medicine Wheel retains a high degree of historic and archeological integrity, as do other archeological sites and features and stone alignments that mark the sacred role of Medicine Mountain.

Ethnographic studies undertaken with Native American elders and traditional practitioners in the 1990s revealed the spiritual and ceremonial importance of the *totality* of the Medicine Mountain landscape, with the Medicine Wheel its ceremonial focus. Bighorn National Forest archeologist, Rick Laurent, (1996) summarized the views of Native American informants:

> Not only is the Wheel sacred, but the whole area of Medicine Mountain. The Wheel is only a "human" method of recognizing and honoring the spirituality of the area. This spirituality includes the beauty of the physical landscape, the spirits that live in the trees, rocks, and the springs of the area, and the spirits of those who had gone before us.

The recognition of Medicine Mountain's significance crosses tribal lines, with traditional religious practitioners of many different tribes acknowledging Medicine Mountain as one of the major sacred sites on the Northwest Plains and viewing it as a dimensional window or doorway to the spiritual world. Accounts of persons from different tribes broadly agree that Medicine Mountain is approached and utilized as a unified landscape. The landscape is defined in part through the differentiation of the site in accord with traditional Native American spiritual practices. Practitioners also agree roughly on the orientation and arrangement of this spatial differentiation in the landscape. The spiritual practices of different tribes on Medicine Mountain are analogous to the form of the Sun Dance and the Sun Dance Lodge, which vary from tribe to tribe but remain broadly recognizable.

During its long history of human use, the district has played an essential role in the lives of Native Americans throughout the Northwest Plains as a sacred pilgrimage site (Boggs 1997:26). Important leaders such as Crow

Chief Plenty Coups and Chief Joseph of the Nez Perce visited the district to fast, pray, and receive power. The site was known as a place of peace, as Crow informant Art Big Man related: "When warring tribes met on the Mountain they realized they had come there for a higher purpose, so they put down their arms and ceased their warfare for the time they were there" (Boggs 2003: 4A:43). Medicine Mountain served many purposes through its inclusion of functional sites, such as an area where medicinal and ceremonial plants were, and continue to be, harvested and traded for plants from other sacred areas. The mountain also became a major navigational landmark on a Native American trail system. The district retains an important role in Native American communities by hosting activities that bolster their cultural identities, as expressed by Floyd Youngman (Hunkpapa Sioux, interviewed 8/22/92, Boggs 2003:4A:26-27): "Like the Medicine Wheel's been here many, many, many years, and it's been used for the preservation of our people. That's why we're alive yet, that's why we're still here. And so that's why we want to protect it, so that we can have a future." The ethnographic record documents continuous use of Medicine Wheel/Medicine Mountain by Native Americans, even during the period when their spiritual practices were suppressed or limited. In 2001, 218 ceremonies at the site were conducted by 921 Native American visitors representing 70 Indian tribes (Medicine Wheel Monitoring Report 2001).

Archeological evidence supports uninterrupted Native American occupation of the Bighorn Mountains and surrounding region for over 11,000 years, from the Paleoindian period to European American contact in the late 1800s. Medicine Mountain specifically figured as a waypoint for Native Americans who traveled along the inter-region trail corridor for thousands of years. At this location, Native travelers in addressing their survival needs availed themselves of the mountain environs' floral and faunal resources; this is made evident in the remarkably intact archeological record found within many of its sites. Complementary data sets are the various tribal oral histories, which express the spiritual significance of Medicine Mountain and, by so doing, provide explanations for the complex of well-preserved cultural features associated with traditional vision quests.

Criterion 1

Medicine Mountain is significant under NHL Criterion 1 as a traditional cultural place (TCP) in the areas of Religion and Ethnic Heritage for its spiritual importance to a broad number of Native American tribes. When examined within a national context, these cultural practices and beliefs are not only rooted in the cultural communities' histories but are associated with and outstandingly represent the broad national patterns of United States history. The property addresses the NHL thematic framework category of Creating Social Institutions and Movements by providing a prime example of a place where Native American religious and moral beliefs are expressed in precontact and on-going ceremony and ritual. These cultural and moral beliefs continue to be a key element in the broad character of Native American worldviews, which have shaped, and continue to shape, the pattern of historic and contemporary Indian interactions with non-Indian communities as well as with the Federal and state governments. Medicine Mountain also plays an important symbolic role, as tribal representatives related that Medicine Mountain constitutes a critical element in ceremonies that are conducted in distant locations, when traditional practitioners are not physically present at the site (U.S. Forest Service 2009).

National Register Bulletin 38 defines a traditional cultural property as one " that is eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community." Medicine Mountain meets these requirements and expresses them at a national level of significance. As ethnographic studies over the past decade have shown, Native American traditions indicate that the Medicine Wheel and its surrounding landscape constitute a major point of reference and ceremonial orientation for many tribes in the region. Protohistoric and precontact use of the Medicine Wheel and the surrounding landscape by Indian people is demonstrated by the presence of associated diagnostic artifacts such as trade beads, ceramic sherds, and projectile points. The sacred qualities associated with Medicine Mountain also express temporal continuity. Numerous sources indicate tribal use even during the period when traditional

Native American spiritual beliefs were suppressed and access to the site from reservations was difficult. Rath (n.d.), Francke (1895), Allen (1913), Stockwell (1916), Lowie (1922), Grinnell (1922), Laurent (n.d.), Booth (1982), Scholtz (1984), York (1995), and Boggs (1997) have all substantiated Native American reverence for the Medicine Wheel and Medicine Mountain over the past century, and tribal oral traditions push ritual practice at the Wheel even deeper into the past. Participants in ethnographic studies conducted by James Boggs and other sources provided documentation for continuous use of Medicine Mountain: 1934, Art Big Man, Crow (Boggs 2003:4B: 74); 1947, Bill Tall Bull, Northern Cheyenne (Boggs 2003:4B: 74); late 1960s, Roger Old Mouse, Northern Cheyenne (Boggs 2003:4A: 26-27); early 1970s, USFS staff accounts of informal interactions with members of Cheyenne, Sioux, and other tribes who visited the site and left offerings (Laurent n.d.:7); and 1971 and 1977, USFS permits for ceremonies (Laurent n.d.:7); and 1977, ceremony by Oglalla Sioux at Medicine Wheel (Scholtz 1983).

Extensive ethnographic, documentary, and archeological research demonstrates that Medicine Mountain encompasses a concentration of resources reflecting a broad continuum of use over time by multiple indigenous groups. It is now recognized that the Medicine Wheel itself is an important part of a larger sacred landscape that embodies cultural significance to Native American peoples. Many Native American tribes consider Medicine Mountain to be a powerful spirit lodge. Each year numerous members of various tribes embark on pilgrimages to the Medicine Wheel to worship, conduct vision questing, and perform other related ceremonies. The journey to the mountain has become integral to this spiritual process, and affiliated tribes consider the locale to be neutral ground and a place of peace (Boggs 2003:4A:19-33 and Medicine Wheel Monitoring Report 2001 and earlier years).

On a national scale, Medicine Wheel/Medicine Mountain NHL reflects a broad North American Indian religious tradition that has its beginnings before European recorded history on the continent. Medicine Mountain is significant within the context of multiple religious traditions in the Northwest Plains. Archeological evidence clearly demonstrates American Indian presence on or near Medicine Mountain for the past 11,000 years. It is generally believed that the Medicine Wheel is a composite feature constructed over several hundred years. The date of the origin of the construction is uncertain but [redacted] from archeological sites [redacted] the Medicine Wheel yield dates ranging back to approximately 4770 BCE (6720 BP).

Medicine Mountain illustrates in physical form the central principles of a larger American Indian traditional religious practice (Boggs 2003). As such, Medicine Wheel/Medicine Mountain is of national significance as a site that embodies central elements of precontact cultural and religious traditions that continue to be shared by numerous western American Indian tribes. These traditions and practices may have evolved over time, but it is likely that they have evolved as a largely coherent and consistent set of cultural practices and beliefs with roots in the distant past of this continent. Adding strength to the argument that these living traditions have remained consistent over time is the fact that they have successfully endured in the face of persistent efforts by non-Indian society to eradicate these traditions from the nation's history as a consequence of western expansion.

Criterion 6

Medicine Wheel was designated an NHL in 1970 under Criterion 6 for its ability to yield nationally significant information. As the type site for medicine wheels in the United States, its nationally significant information potential was based on being "the largest and most elaborate of known Indian structures of its type found east of the Rocky Mountains in a wide area" (Cattanach 1970). Since then, extensive ethnographic, documentary, and archeological research has demonstrated that the Medicine Wheel is also associated with a larger concentration of archeological and cultural resources that reflect a broad continuum of use over time by multiple aboriginal groups. The expansion of this National Historic Landmark to include not only the Medicine Wheel itself, but

also its larger associated cultural landscape, yields an exceptional opportunity to expand our knowledge of such sites throughout the United States and western Canada.

Medicine Wheel/Medicine Mountain NHL District is eligible under Criterion 6 in the areas of aboriginal historic and precontact (prehistoric) archeology. A comprehensive archeological study of Medicine Wheel/Medicine Mountain NHL would be of inestimable value to researchers as it is likely to yield important information that would address research questions on several nationally significant topics. These include questions regarding morphology and function of medicine wheels throughout North America and Canada; how such sites relate to the larger social organization and trade route development of Northwest Plains tribes; the adaption to mountain environments by precontact people; and ceremonial activities that specifically focused on Medicine Mountain for thousands of years. Within the Medicine Wheel/Medicine Mountain NHL living traditions and the precontact past dynamically converge to inform and stimulate anthropological research. This combination of ethnographic and archeological information provides a valuable perspective; the interplay between these different lines of evidence provides a richer, more comprehensive understanding that would not be possible using either source alone. As a cohesive group these cultural features relate to the NHL's primary purpose as a Native American spiritual and ceremonial center.

TRADITIONAL NATIVE AMERICAN VIEWS OF MEDICINE MOUNTAIN

The Ethnographic Process

The ethnographic information included in this nomination was derived from oral interviews with Native Americans and European Americans conducted between 1992 and 2000 by James Boggs (Consulting Anthropologist), aided by Greg Campbell (Consulting Anthropologist and Chairman of the Anthropology Department, University of Montana), and Fred Chapman (State Historic Preservation Office Archeologist). In order to explore the spiritual use and importance of Medicine Mountain, the research strategy utilized key informants as the source of data. Utilizing survey methodology would not have been effective therefore a random sample method was not employed. The researchers sought to find persons knowledgeable about the topic, and this approach empowered interested parties to direct the researchers to other individuals who had special knowledge of the study area.

Initial contact for interviews was by referral through the Medicine Wheel Coalition, Medicine Wheel Alliance, Bighorn National Forest, and other knowledgeable persons. Views of informed and interested members of the long-time local non-Indian community surrounding Medicine Mountain were also sought; however, since the study's goal was to describe and understand Native American use of the site, Boggs' focus was on the evidence provided by recollections and activities of tribal members. In the absence of statistical controls, tests of the reliability and validity of the data included consistency among respondents; consistency with the documentary, archival, and archeological records; and what might be called narrative integrity (how well the resulting "story" hangs together). The interview pattern ensured ample coverage, avoiding favoritism and selective data collection, as the initial tier of experts was reasonably diverse. This interview structure also helped minimize data bias and maintain confidentiality. Native American elders, medicine men, and those that practice traditional tribal beliefs listed below provided ethnohistoric testimony in support of this nomination. Several of these consultants represent the highest traditional authority of their respective tribes:

> *Art Big Man.* Crow Traditional Elder; great grandson of Cut Ear, the Crow Indian who was photographed at the Medicine Wheel by H. H. Thompson ca. 1916. Medicine Wheel Alliance.
>
> *Steve Brady*. Headsman, Northern Cheyenne Crazy Dog Society; Member, Northern Cheyenne Cultural Commission; appointed tribal consultant to state and federal agencies regarding cultural resource issues; testified before congressional subcommittees regarding Native American

religious freedom issues. Treasurer, Medicine Wheel Coalition for Sacred Sites of North America.

Francis Brown. Member, Northern Arapaho Traditional Elders; Chairman, Medicine Wheel Coalition for Sacred Sites of North America; testified before congressional subcommittees regarding Native American advocacy issues.

Delphine Clair. Eastern Shoshone Traditional Elder; Member, Medicine Wheel Alliance; appointed tribal consultant to state and federal agencies regarding cultural resource issues.

Jerry Flute. Executive Director, Association for American Indian Affairs; Member, Medicine Wheel Coalition for Sacred Sites of North America; former Sisseton/Wahpeton Sioux Tribal Chairman, testified before congressional subcommittees regarding Native American advocacy issues.

John Hill. Crow Traditional Elder; Chairman, Medicine Wheel Alliance.

Diana Mitchell. Eastern Shoshone representative to the Fremont County Historic Preservation Commission; relative of Chief Washakie.

Jennie Parker. Chair, Northern Cheyenne Cultural Commission. Medicine Wheel Alliance.

Burton Pretty-On-Top. Chairman, Crow Tribal Cultural Committee.

Anthony Sitting Eagle. Senior Member, Northern Arapaho Traditional Elders.

Harold Smith. Member, Northern Arapaho Traditional Elders.

George Sutton. Southern Cheyenne/Southern Arapaho Chief; Vice Chairman, Medicine Wheel Coalition for Sacred Sites of North America; Treasurer, Keepers of the Treasures.

Bill Tallbull or TallBull. Northern Cheyenne, Traditional Elder; Member, Advisory Council on Historic Preservation; Member, Native American Graves Protection and Repatriation Act (NAGPRA) Review Board; Chairman, Medicine Wheel Alliance.

John Tarness. Eastern Shoshone Medicine Man and Sundance Chief; Treasurer, Medicine Wheel Coalition for Sacred Sites of North America.

Phillip Underbaggage. Teton-Lakota Sioux Traditional Elder; Fifth Member, Teton-Lakota Sioux Tribal Council; Member, Medicine Wheel Alliance.

Curly Bear Wagner. Blackfeet Traditional Elder; Member, Medicine Wheel Alliance.

Joe Waterman. Member, Northern Arapaho Traditional Elders.

Joe Williams. Pipekeeper, Sisseton/Wahpeton Sioux; Member, Medicine Wheel Coalition for Sacred Sites of North America.

Haman Wise. Eastern Shoshone Traditional Elder; Vice Chairman, Medicine Wheel Alliance; appointed tribal consultant to state and federal agencies regarding cultural resource issues.

Floyd Youngman. Wahpeton Sioux Traditional Elder, Medicine Man, and Sundance Chief; Member, Medicine Wheel Alliance.

Ethnographic Data

Using the interviews conducted in the ethnographic study, a picture of traditional Native American use of Medicine Mountain has been documented. The accounts below describe how Native Americans view and relate to Medicine Mountain. Native American traditional practitioners do not approach the Medicine Wheel as a form isolated from its surroundings. Native American cultures put the primary focus on Medicine Mountain itself, and on the traditional sacred values and beliefs it represents. The Medicine Wheel is an important symbol or marker for that particular sacred space. The accounts also provide ethnographic documentation of past and continuing ceremonial and spiritual uses of the district, including how different areas of the mountain are used for differing purposes. These accounts clearly demonstrate that the district meets the requirements as a traditional cultural place. As Northern Cheyenne Jennie Parker recalled: "My father [said that] it [the Medicine Wheel] … was a sacred place. It was in the mountains, you know. It was a powerful place because of the spiritual energy that was there. People would go there, for... like, I guess you would call them pilgrimages. They would make a pilgrimage there certain times of the year" (Boggs 2003:4A:19-20, interviewed 1/23/94).[7]

In considering tribal historic connections to Medicine Mountain and other sacred sites on the Northwest Plains, it is important to recognize that before the arrival of immigrants of primarily European descent, Indian tribes were highly nomadic. The prior mobility of Indian tribes in western North America is illustrated by the Late Precontact Period movement of tribes from the Great Lakes and Northwestern Woodlands, notably the Cheyenne, Sioux, and probably the Arapaho, onto the Plains; the Athabaskan migrations southward from the MacKenzie River Basin of northwest Canada; and the departure of the Crow from their Mandan-Hidatsa homeland in western North Dakota.

> All across the continent...the Lakota people traveled all this area, through their history. [But] when you identify these sacred sites [you connect them with only] the tribe that are living here at the present time (Flute and Williams, Sisseton/Wahpeton Sioux,[8] Boggs 2003:4A:38, interviewed 1/23/94, p. 3).

Thus it is not only the Crow, whose Montana reservation abuts the Bighorn National Forest boundary a few miles north of Medicine Mountain and whose traditional territory included the whole northern Bighorn region at the time of European Americans contact, who have traditions about Medicine Mountain. The Medicine Wheel appears in the oral traditions of other tribes as well.

> What I heard about the Medicine Wheel ...was from my Father... One day, he said, I used to hear my Grandmother talk. She was an Arapaho. And she told about a big old wheel...and it had spokes. He didn't know which mountain it was on. He said it was up in Wyoming somewhere. And he said, to the Arapaho, that was a very powerful site... And that's all that he could say. Of course, you know...we were already in Oklahoma. And I guess it would be about two, three generations before that, that actually knew about this. His Grandmother probably learned about it only from her grandparents. And this is the only way that I knew about it (George Sutton, Southern Cheyenne/Southern Arapaho, Boggs 2003:4A:23-24, interviewed 1/23/94).

In some Native American ethnographic accounts, the Bighorn Medicine Wheel and other major sacred sites play an essential navigational role. Sacred sites emerge as an integral part of the larger cosmological order by which Indian people oriented their movements and activities. The following transcription demonstrates how Sioux "star knowledge" relates to the geographical locations of the sacred sites across the Northwest Plains region.

> ...We hear the Old People tell us that there are four primary sites. And it starts here with the Medicine Wheel. The Medicine Wheel, Devil's Tower, Bear Butte, and Harney Peak [in the Black Hills].... They say that there's a constellation - that if you put this map with the... [four sites]... and you overlay the map on the constellation, it's the same identical sites. So there's four stars that will overlay identically these four sites. ... And then underneath those primary sites there are numerous other sites that are for fasting and prayer (Flute and Williams, Sisseton/ Wahpeton Sioux, Boggs 2003:3:69, interviewed 1/23/94).

To other tribes, the Medicine Wheel apparently served as a kind of tribal boundary marker. In *Cheyenne Memories*, John Stands In Timber noted that Cheyenne and Arapaho territory

> ...started in the northwest at Fat River (the Missouri) and up Elk River (the Yellowstone) and the Bighorn River to Heart Mountain. From there the boundary followed the Rocky Mountain divide, down by the Medicine Wheel and through the Tetons to the south...(Stands In Timber and Liberty 1967: 124)

The Medicine Wheel as a navigational landmark appears elsewhere in the ethnohistorical literature. Northern Cheyenne elder Wesley Whiteman (Black Bear), whose father Vehoc was an eyewitness to the aftermath of Custer's defeat on the Little Bighorn, reported the Cheyenne camp disbanded the day after the battle and "Some of them went up Lodge Grass Creek toward Medicine Wheel" (Schwartz 1988: 22).

While Medicine Mountain plays an important role in maintaining the continuity of Indian tribal practices, beliefs, and identity, often the particular stories involving Medicine Mountain are not so much tribal as they are familial and personal. Burton Pretty-On-Top (Crow, Boggs 2003:4A:21-22, interviewed 1/20/94) told how he came to know of the Medicine Wheel.

> I would just like to say that my knowledge of the Medicine Wheel goes back to my Grandfather who raised me. My Grandfather was Otto Bear Ground. He was in his eighties when he passed away...And I remember my Grandfather teaching me the stories of the Crow Nation. And this taught me who I am as a person. It set the foundation for my life...
>
> I had a Great Great Grandfather. My Father...was Edgar Pretty On Top. From Edgar Pretty On Top to Henry Pretty On Top was my Grandfather. Henry Pretty On Top to Pretty On Top, [gives name in Crow]. From there, my ancestors lead to a man called Little Head. Little Head [gives name in Crow] was one of the men who fasted in the Wolf Mountains. And he saw a vision where he saw the Medicine Wheel. And in the center of the Medicine Wheel was an old man. And he came back from his vision quest, and he shared that story, and was told, "you have to go up to the Medicine Wheel now. And in that place that you saw, you have to fast." The Elders told him that – that's what they interpreted. So later on that summer and that Fall, he went and fasted up in the Medicine Wheel, in that center circle.

It was from that fast, Burton Pretty-On-Top related, that his ancestor, Little Head, acquired his personal "medicine."

Similarly, a contemporary practitioner's own regular use of Medicine Mountain may have begun as a family tradition of regular visitation. This was true for Art Big Man (Crow, Boggs 2003:4A:23, interviewed 7/9/92).

> Since I was a kid I went up to the Wheel. My Grandfather…. One day ___ (my Grandfather (spoken in Crow)) had a dream to go up to the Wheel. Wolf Voice and Big Man brothers went

> with him. ... [My dad went up there every year.] I was about six years old when I first went. In 1934, I was about six. And ever since then. [My Dad went] way before that, even.

Others did not grow up with family traditions about Medicine Mountain, but learned about the Medicine Wheel as children or adults from tribal Elders. Bill Tallbull, as a child in 1935, first learned of Medicine Mountain from an Elder. Later Tallbull fought in Europe during World War II. It was not until he had come home from the war in 1947 that he actually visited Medicine Mountain. From that time on, it became vitally important in the rest of his long life (Bill Tallbull, Northern Cheyenne, interviewed 8/22/92).

Likewise, Northern Cheyenne Headsman Roger Old Mouse related his first visit to the Medicine Wheel after returning from Vietnam in 1965:

> I never followed the old ways when I was younger. When I returned from the War [in Vietnam], I decided to take up the traditional practices for my family. I eventually spoke with two elders. They told me to make offerings at Bear Butte (near Sturgis, South Dakota), Devils Tower, the Medicine Wheel, and finally to the Sacred Hat on my reservation. I spent the whole summer visiting these sites and leaving offerings. When I returned, the elders told me I could ask permission to go into the sundance (Old Mouse, Northern Cheyenne, Boggs 2003:4A:27, interviewed 2/10/99).

Additional testimony from Floyd Youngman (Wahpeton Sioux, interviewed 8/22/92) elaborates the complex interweaving of contemporary experience, intertribal communication, and traditional knowledge that helps define Medicine Mountain's national significance within today's Native American cultural practice. Youngman, who turned to Native American traditional practices in 1981, related that rather than learning about Medicine Mountain as part of the traditional heritage of his family or his tribe, he first learned about the Medicine Wheel in 1989 by reading about it in the newspaper.

> I read about this Medicine Wheel in the papers, and Bill Tallbull was part of that group trying to save it from tourism and the lumber companies from defacing the Mountain. So I met up with Bill. ...Mr. Tallbull related to me that every year, every time I come up here, I find something new...I wanted to find out more about it...the things that were here... (Boggs 2003:4A:25)

Floyd Youngman then went back to his own tribe and his own spiritual mentors to learn more about it.

> ...when I first came here [to Medicine Mountain], we went back and had a ceremony and [my own grandfather, who watches over me] is the one who said it is good to come back here again. So, I know he has been here before. I don't know how old he is, or how far back that goes. Like the Medicine Wheel's been here many, many, many years, and it's been used for the preservation of our people. That's why we're alive yet, that's why we're still here. And so that is why we want to protect it, so that we can have a future (Boggs 2003:4A:25)

These representative citations from interviews with prominent members of the Native American traditional community illustrate a number of important points. First, Indian practitioners from the different tribes represented here share common understandings about the spiritual and ceremonial significance of Medicine Mountain. Second, regional Indian tribes do not maintain worship at Medicine Mountain as an aspect of what could be called an organized, tribal religion. Traditional Native American spiritual practice itself is highly individualistic. The individual practitioner finds or establishes his own personal relationship to the spiritual environment of Medicine Mountain, and through that, to the Creator. Third, traditional cultural knowledge about Medicine Mountain is often transmitted within families, or from elder to youngster, from teacher to

student, rather than as part of organized bodies of knowledge distinctly representative of different tribes. The personal and direct knowledge thus gained, however, can become part of the knowledge then that is passed to descendants and apprentices, as illustrated in several of the preceding citations. Lastly, while historic circumstances have changed for Indian people, the sense of continuity in Native practice at Medicine Mountain extends directly from the precontact, or Native American, era into the present. There are no fundamental temporal breaks in Native American understandings of Medicine Mountain as a sacred site. Indian practitioners do not recognize the same sharp temporal dividing line that is marked by the "historic/precontact" distinction in European American writing and thought.

There is considerable evidence that for many, if not all, Northwest Plains tribes, there is a shared symbolism between the Medicine Wheel and the Sun Dance, which for most tribes is the principal traditional ceremony conducted annually by tribal authorities. Anthony Sitting Eagle, Northern Arapaho traditional elder (Boggs 2003:3:75, interviewed 23 October 1995), affirmed that the Medicine Wheel and the Northern Arapaho Sun Dance are connected: "It's the same thing, you know," he said gesturing to indicate a circle, "It is the same form as the Sun Dance lodge." When the Arapaho recently repatriated their Sacred Hoop, which is one of the tribe's most sacred covenants and used in their Sun Dance, Sitting Eagle took it up to Medicine Mountain and held a sweat ceremony to re-consecrate it.

Art Big Man, Crow Elder (interviewed 9 July 1992), reported that the Crow names for the Medicine Wheel directly identify the Wheel with the Sun Dance. The Crow words for the Wheel, "...mean 'Eagles Nest', 'Where the Eagles Set Down' and 'Where a Great Big Tipi is Set Up There for Sun Dance'" (Boggs 2003:3:76-77).

Bill Tallbull, Northern Cheyenne Elder, expressed the view that Medicine Mountain is like a Native American ceremonial lodge, and that the Medicine Wheel, located on a high ridge northwest of the summit, is the ceremonial focus for the lodge:

> This (gestures to the Medicine Wheel) is the Altar. This is the place where the ceremonies are carried out. The Mountain itself... I've been told that a mountain is a lodge. And don't go to the top of the mountain, because there's an opening there, as any lodge has an opening at the top. Carry your ceremonies out away from the top, on the sides... That's why [the Medicine Wheel's] built here (Boggs 2003:4A:52, interviewed 22 August 1992).

Many of the interviewed Native American traditional practitioners regard Medicine Mountain as a spirit lodge. In tribal traditions, a spirit lodge, as given form in the Sun Dance, opens to the east and is properly approached from the east, the direction of the rising sun. Traditionally, ceremonies, prayers, and gatherings take place west and north of a ceremonial lodge, just as in the case on Medicine Mountain. Native American traditional practitioners do not approach the Medicine Wheel as a form isolated from its surroundings; they put the primary focus on Medicine Mountain itself and on the traditional sacred values and beliefs it represents.

For many Native Americans, preparation for ceremonial worship at Medicine Mountain begins on their reservations, marking the start of the pilgrimage. The first ceremonial activity that takes place in the vicinity of Medicine Mountain is when the mountain is first seen. The first visual contact is where the pilgrims stop, pray, and may hold a pipe ceremony. Steve Brady, Headsman of the Northern Cheyenne Crazy Dog Society, explained this practice while being interviewed on Medicine Mountain:

> As with many sacred sites, our people...whenever they would see...the sacred sites...they would wait and pray. And the same principle applies with Bear Butte and other sacred sites... If you were traveling down in the bottom of a creek...and you came up right over here (informant points

> toward the creek), then that's where you would stop. But if you come over those big mountains way over there (the informant pointed south and west toward the Wind River, Owl Creek, and Absoraka mountains across the Bighorn Basin, 75-100 miles away)... but you saw [Medicine Mountain] from that point, then that's where you would stop... Whenever they would approach a site... [they would] hold a pipe ceremony. And more often than not, many times, it was only people that were qualified, that could hold certain types of ceremonies, that could even go to the site (Boggs 2003: 4A:34-35, interviewed 8-28-1993).

When one nears the mountain, they set up a base camp. Bill Tallbull, Northern Cheyenne, explained that base camps and other activity areas must be set up some distance away from the ceremonial centers:

> [Ceremonial centers] got to be far enough away so you cannot see the camp. That you cannot hear the noise of the camp. It's got to be completely away from there (Boggs 2003:4A:56-57, interviewed at the Medicine Wheel, 22 August 1992).

Currently, base camps are set up east of Medicine Mountain, often in the Porcupine Creek area.

The eastern and northeastern flanks of the mountain play an important role in the ceremonial activity that occurs on the mountain. These areas are generally used for "staging" ceremonials, or purification rituals, which prepare the novitiate to pray on the mountain and also to help them transition back to the "ordinary" world once the vision quest has been completed. Haman Wise (Wind River Shoshone, interviewed 22 August 1995) reported that the Shoshone utilize the [redacted] for staging ceremonies in preparation for vision questing near the summit of the mountain. The [redacted] consists of a [redacted] in a small clearing within a forested area approximately [redacted] the Medicine Wheel. It connects directly to the Medicine Wheel [redacted]. The origin of the stone feature at the [redacted] is in question (York: 1995:26) and may be of European American origin.

Art Big Man and John Hill (interviewed 21 August 1992) explained how Crow medicine men and ceremonial initiates utilize the [redacted] site. The initiates line up inside [redacted] while the medicine men, one for each initiate, stand outside and paint and prepare them in various ways, guiding them in the performance of necessary prayers and rituals. Once this process is complete, the initiates are ready to make the final approach toward the summit, ascending from the east. The approach constitutes a ritual act and is an active part of the worship that centers on the mountain. The ancient [redacted] have [redacted] been identified by traditional practitioners as [redacted] utilized in the ceremonial eastern approach.

Once the initiates are prepared, they are taken to the Medicine Wheel area for the vision quest. This is often part of a healing ceremony in which they ask for help for their loved ones or themselves. Once they cross the small stream flowing from the spring, they are considered to have passed into the spiritual realm and there is no turning back until their quest is done. [redacted] mark stops for prayer and ritual along [redacted] up to the Medicine Wheel area (Art Big Man and John Hill, interviewed 21 August 1992).

The areas for prayer and solitude lie primarily along the western rim of Medicine Mountain, in the draw to the west and north of the Medicine Wheel. Very few practitioners utilize the Medicine Wheel for the vision quest. As Francis Brown, Northern Arapaho (interviewed, 6 June 1998), stated: "Only the purest people could approach or come up to the Medicine Wheel itself. Everyone else had to stay around it. Just like around the Sun Dance." Areas for vision questing and prayer include [redacted] Ceremonies are held at the Wheel, and to the west and north of the Wheel. As Bill Tallbull, Northern Cheyenne Elder, explained:

> The place that I was shown—it's to the west of the Medicine Wheel. It's not real close to it. When vision questers use a medicine wheel or a mountain summit, their camps have to be some distance away. When we have a [ceremonial] lodge, we go away from it to hold our preparatory ceremonies.
>
> When we go to pray--we also go away from it to pray. Usually we go to the west of it. That's how it's been shown to us. We don't go between the Lodge and the sunrise (Boggs 2003:4B:5, interviewed 12 February 1995, paraphrased from handwritten notes).

These ceremonial areas extend out along the [redacted] for a considerable distance (e.g. a Crow ceremonial site is located [redacted] the Wheel). It is in these areas where most of the [redacted] mark places where people have prayed, vision quested, and worshipped.

The spatial component of worship noted on Medicine Mountain is consistent with traditional practice connected with certain Sun Dance traditions. The Cheyenne and Arapaho lay out their Sun Dance camps so that no tipis, camps, or other activities lie between where the sun rises above the horizon in the morning and the Sun Dance arbor. Similarly, in the immediate vicinity of Medicine Mountain summit and the Medicine Wheel, camps, councils, and prayer places lie to the west of the Wheel where they will not come between the rising sun and the monument itself. As Northern Arapaho Elder Francis Brown (interviewed 6 June 1998) stated, "There is always a space around the Sun Dance Lodge."

The entrance and "opening" to Medicine Mountain as a sacred place is to the east. Staging ceremonies designed to prepare the traditional practitioner for prayer and vision questing remain at a distance from the mountain summit, also taking place in the east. Nothing shadows the "lodge" from the rising sun, therefore the eastern approach remains unencumbered and open. The Medicine Wheel constitutes an important and particular locus of ceremonial activity, serving as the ceremonial focus for the mountain, and is located northwest of the summit of Medicine Mountain. Prayer and vision questing take place to the west or north of the summit. Only certain practitioners go to the summit and the Wheel. Camps and other activities associated with daily life occur at a distance, out of sight and sound of the vision quest areas.

ARCHEOLOGICAL VIEWS OF MEDICINE WHEEL/MEDICINE MOUNTAIN

Cultural Context: Bighorn Mountains and Surrounding Region

Archeological evidence supports uninterrupted Native American occupation of the Bighorn Mountains and surrounding region beginning around 11,500 years ago, from the Paleo-Indian period to Euro-American contact in the late 1800s. The area has been an important crossroad for the many tribes of the Northwest Plains[9] and Great Basin regions of the United States. The following cultural overview briefly describes the occupational patterns of the hunter-gatherer societies that once lived in the Bighorn Mountains region, as well as more recent periods, as characterized by the archeological record.

Paleoindian Period (9550 – 6050 BCE; 11,500 - 8000 BP). During the earliest occupation of the region, big game hunting appears to be the primary means of regional subsistence. A number of projectile point types indicative of this period, including Clovis and Folsom points, have been found *in situ* in the surrounding basins and the Bighorn Canyon (Hogan 1979). The oldest known Clovis site in Wyoming is the Colby site. This site, located in the Bighorn Basin near the base of the Bighorn Mountains, is dated to 9250 BCE (11,200 BP), and contains the cached remains of a mammoth kill (Frison 1991; Frison and Todd 1986).

At approximately 8050 BCE (10,000 BP), subsistence patterns diverged across the Northwest Plains. The Northwest Plains Paleoindian tradition appears to have been economically dependent on bison procurement activities, while the Foothill-Mountain Paleo-Indian tradition utilized the mountain slope areas for hunting and gathering. The divergence of these two Paleoindian traditions coincided with the onset of a hotter, drier climate and may well have spurred the development of a more diversified hunting and gathering population occupying the Bighorn's slopes and foothills (Hogan 1979). The Bighorn Mountains are replete with stratified rock shelter sites that reflect this latter subsistence strategy (Frison and Wilson 1975; Frison 1991; Frison and Walker 2007).

Early Archaic Period (6050 – 3050 BCE; 8000 - 5000 BP). Harsh climatic conditions during this period resulted in regional population shifts of humans and animals (Frison and Wilson 1975, Frison 1991). Economically, indigenous people relied on a more diverse hunting and gathering strategy, as archeological evidence suggests they utilized a wider variety of game species and increasingly relied on more plant resources. Pit houses with associated cache pits, central hearths, and plant grinding implements appear in the archeological record during this time (Frison 1991: 84). Many rockshelter sites on the slopes of the Bighorn Mountains reveal continuous occupation through the Early Archaic Period. Diagnostic Early Archaic side-notched points are found at Medicine Lodge Creek, Southsider Cave, and numerous other Bighorn Mountain/Basin sites. This uninterrupted cultural continuum indicates the foothill-mountain subsistence strategies first developed by the late Paleoindian were employed successfully during this period (Frison and Wilson 1975: 20). The oldest dated material in Medicine Wheel/Medicine Mountain NHL is from this period. A [redacted] dated to approximately 4700 BCE (6650 +/-70 BP). In addition, a [redacted] in the NHL may date to this period (Keller 1993).

Middle Archaic Period (3050 – 550 BCE; 5000 - 2500 BP). This period is directly associated with the McKean cultural complex, a cultural tradition some archeologists argue is represented by Uto-Aztecan speakers. The Bighorn Mountain region has produced the earliest dates for the McKean Complex (Husted 1969, Frison 1991). The Paint Rock V site, Leigh Cave, Granite Creek Rockshelter, and the Little Bald Mountain Site, all located in the foothills of the Bighorn Mountains, have produced McKean projectile points. These sites date between 2750 and about 2250 BCE (4700 and about 4200 BP). The cumulative evidence indicates the McKean tradition is also present north into southern Montana, east to South Dakota, and south into northeastern Colorado (Frison 1991).

Large numbers of stone circles appear across the Northwest Plains beginning in the Middle Archaic and extending into subsequent precontact periods. They vary in size and are distributed in numerous ecozones, including the high mountains. Ethnohistorical and ethnographic information indicates that habitation structures, commonly known as tipis, were held down with stones that would have been placed in a circle. Some stone circles, however, may have had ideological functions (Kehoe 1958, 1960; Malouf 1962), as many Northwest Plains circles do not correlate in size with habitation structures and lack the associated cultural materials. Scholars and Native Americans have suggested that these features possess spiritual significance and may have been used as vision quest enclosures (Fredlund 1969; Horse Capture 1980; Connor 1982; Burley 1985; and Dormaar and Reeves 1993). Stone circles have been recorded in the vicinity of bison jumps and may represent shamanistic activity associated with communal bison kills. Larger stone circles probably also served important religious functions. In the Medicine Wheel/Medicine Mountain NHL District, a Middle Archaic [redacted] was located at [redacted] that has been dated to the Middle Archaic.

Late Plains Archaic (1050 BCE – 450 CE; 3000 - 1500 BP). By 1050 BCE (3000 BP), the McKean tradition was replaced by a Late Plains Archaic tradition from the north. Scholars refer to this cultural complex as Pelican Lake (Husted 1968). The appearance of Pelican Lake side-notched points, in association with Yonkee

projectile points found in the Powder River Basin, distinguish the diagnostic material culture of the Late Archaic from the Middle Archaic period. The Medicine Lodge Creek site, mentioned previously, contains two Pelican Lake levels that date to about 1150 and 1150 BCE (3100 and 3000 BP).

About 50 BCE (2000 BP), a diagnostic side-notched projectile point called Besant appeared in the Powder River and Bighorn Basins. The point is associated with an intensive, sophisticated period of communal bison hunting using bison corrals. The Cedar Gap Site, on the southern end of the Bighorn Mountains, and the Ruby Site, in northeastern Wyoming, reveal the complexity of this strategy of hunting. Woodland pottery is found on some Besant sites and there is evidence that extensive religious activity was conducted at some kill sites (Frison 1991). A number of cave and rockshelter sites suggest an intense occupation of the Bighorn Mountains during the Late Archaic period. These sites have yielded coiled basketry fragments, woodworking debris, sinew, hide fragments, shell, an atlatl and weights, and a variety of digging sticks. The cultural inventory argues for a subsistence strategy adapted to an arid environment, and is reminiscent of the precontact material culture patterns of Great Basin sites. Archeological evidence suggests that, during this period, the Bighorn Mountain region was influenced not only by Northwest Plains peoples with established bison hunting traditions but also by people from the Great Basin. These contrasting traditions coexisted in the Bighorn Mountain area into the Late Prehistoric period (Frison 1991). Several sites in the NHL District have been dated to this period.

Late Prehistoric Period (450 – 1600 CE; 1500 - 350 BP). Smaller side-notched and corner-notched projectile points, thought to coincide with the introduction of the bow and arrow, provide a distinctive cultural marker for the advent of the Late Precontact Period. The Avonlea Complex (ca. 650 CE; ca. 1300 BP), characterized by an emphasis on hunting activities and distinguished by unique side-notched projectile points, appears early in the Late Precontact archeological record of the Bighorn and Powder River basins. Available evidence suggests that the Avonlea people came from the north.

Chronologically coincident with the Avonlea complex are small corner-notched point varieties. These points are widespread across the Northwest Plains, including the mountain regions. Small side-notched and base-notched projectile point styles, used in the Bighorn Mountain region by the Crow and Shoshone, are found across the Northwest Plains in association with terminal Late Precontact sites (Frison 1991; Wedel 1974).

Artifacts related to hunting continue through the Late Precontact Period, but there is a further increase in grinding implements and the appearance of pottery. Human populations increased on the Northwest Plains, possibly in response to improving environmental conditions. Regionally, archeological evidence dating to the Late Precontact period also suggests that resource exploitation was intensified in the Bighorn Canyon and Mountain areas. Carved steatite vessels have occasionally been found in the Bighorn Mountains. Pecked and incised petroglyphs and painted pictographs become more common. Numerous cairn lines are found throughout the Bighorn Mountains. Some cairn lines mark trails while others are associated with game drives. All these changes suggest the regional development of rich and varied cultural complexes. Important sites in the Bighorn Mountains from this period include the Medicine Lodge Creek, Deer Creek Site, Worthan Shelter, Tensleep Creek, Daugherty Cave, and the Bighorn Medicine Wheel (Frison 1991; Wedel 1974). Numerous sites in the NHL District date to this period.

Proto-Historic Period (1600 – 1750 CE; 350 - 200 BP). During this period tipi rings appear in greater abundance, possibly indicating an increase in population density. Sites thought to date to this time period can be attributed to ethnographically known Indian peoples. Horses were introduced into the region and European trade goods begin to appear in the archeological record, marking the spreading influence of the advancing European traders and settlements. Evidence of Proto-Historic Native American occupation in the Bighorn Mountains also includes habitation structures, the conical timber lodges sometimes called “war lodges,” game traps, rock art locations, burials, ceramics, and metal arrow heads (Frison 1991). In addition, the Proto-Historic

site [redacted], which overlooks the [redacted] to the east, [redacted]. This site has been interpreted as a place intended for ritual activities during Proto-Historic period (Zier 1987).

There was an indisputable Crow and Shoshone presence in the Bighorns during this time. In the northern Bighorn Mountains, numerous tipi ring concentrations in association with Crow ceramics are found close to the timberline (Frison 1991). The Big Goose Creek bison kill and camp site, located along the eastern slopes of the Bighorn Mountains, produced Crow pottery dating to approximately 1450 CE (Frison 1979). A large tipi ring site on Little Bald Mountain a few miles southeast of Medicine Mountain contained abundant lithic debitage, bison bones, and a Crow potsherd. Frison and Wilson (1975) suggested a date of 1150 CE for the site. The Inter-Montane pottery tradition, usually associated with Shoshonean speakers, is also represented in the region. Frison (1991) indicates steatite quarries located in the Bighorn Mountains may have been used by Shoshonean people.

With the exception of sites containing Crow or Shoshone ceramics, assigning specific ethnicity to Proto-Historic or early historic sites located in the vicinity of the Medicine Wheel is somewhat tenuous because of the lack of tribally diagnostic material remains. Based on ethnographic accounts and tribal oral traditions, it is clear that several Native American groups either occupied or regularly camped in the Bighorn Mountains. Principally, these include the Crow, Shoshone, Arapaho, Cheyenne, Teton Dakota, and Kiowa (Lowie 1918 and 1935, Grinnell 1923, Swanton 1952, Stands in Timber and Liberty 1967). Thus, until ethnically specific cultural remains are identified, Proto-Historic and historic archeological sites could have been used by any of these tribes, all of which Zier notes (1987:77) may have used the nearby Bighorn Medicine Wheel, as they do today.

The Euro-American Period (1800 CE to Present; 150 BP to Present). Colonization of the Bighorn Mountains and surrounding regions by European Americans in the late 1800s dramatically altered the precontact lifestyle of the Native American peoples. By the late nineteenth century, use of Medicine Mountain was dominated by European Americans, Native American religions were suppressed, and Native Americans' visits to Medicine Mountain and use of the Medicine Wheel were diminished and became covert. A resurgence of traditional Native American ceremonial use of Medicine Mountain coincided with a pan-tribal nationwide revival of traditional spiritual practices. This was evident by the late 1960s or early 1970s. The revival of Native American traditional practices was accompanied by a significant shift in the climate of opinion surrounding issues of Native American religious freedom in society at large. The American Indian Religious Freedom Act of 1978 (AIRFA) was an important signpost for this shift. AIRFA signaled a new era of recognition for the practice of Native American religions in the late 1970s and early 1980s. The 1992 amendments to the National Historic Preservation Act that required federal agency consultation with tribes also typifies subsequent acts and regulations that express this general shift in attitudes and values.

Cultural Context Summary

There is ample evidence for uninterrupted Native American occupation of the Bighorn Mountains and nearby regions beginning over 11,000 years ago. The Bighorns, including Medicine Wheel/Medicine Mountain NHL, fostered distinctive cultural adaptations based on diversified hunting and gathering subsistence bases. Beginning in the Late Plains Archaic period (1050 BCE – 450 CE; 3000 BP to 1500 BP), the archeological record for the Bighorn Mountains indicates a complex history of cultural influence from adjacent physiographic regions. Archeological evidence links particular sites with tribes known in the region today, especially the Crow and Shoshone. Also, this evidence identifies the Bighorn Mountains as a crossroads for many tribes of the Northwest Plains, Great Basin, and Plateau regions. Significant concentrations of Native American-associated archeological sites occur within the trails corridor that crosscuts the NHL District. This close spatial association of sites with trails system continues well beyond the limits of the NHL District, thereby reflecting

how Medicine Wheel/Medicine Mountain NHL fits into the broader picture of Native American interactions among these three culture regions. Moreover, the combining of ethnographic and archeological information has provided mutual corroboration of the ceremonial significance of these trails and, by association, adds significance to these associated sites.

The Medicine Wheel Phenomenon on the Northwest Plains

The term "medicine wheel" was first coined in reference to the Bighorn Medicine Wheel, in the late nineteenth century (Grinnell 1922; Simms 1903). As archeological research advanced on the Northwest Plains, other structures also characterized by a variety of stone circles and spoke-and-cairn configurations were encountered. The only documented structure at that time was the Bighorn Medicine Wheel; therefore, following archeological convention, this site is recognized as the quintessential type site for the generic category "medicine wheel" (York 1995:33), which actually encompasses a variety of structures throughout the Northwest Plains. In effect, scientific research conducted at Bighorn Medicine Wheel over the past decades formed the basis of research regarding all recognized variants of this unique structural manifestation. Of all the medicine wheels, the Bighorn Medicine Wheel is the best known and most studied.

To date, archeologists have identified approximately 135 of these stone configurations mostly located in southern Alberta and Saskatchewan with others identified in South Dakota, Wyoming, and Montana. Approximately 90 percent are located in southern Alberta, Saskatchewan and northern Montana. Aside from the Bighorn Medicine Wheel, two medicine wheels have been listed on the National Register of Historic Places: Bear Creek Ranch Medicine Wheel (48BH48) and *Annashisee Iisaxpuatahcheeaashisee*--Medicine Wheel on Bighorn River (24BH220). Recent studies regarding medicine wheel variability (Mirau 1995:197; Vogt 1993:63) have resulted in the conclusion that their physical differences probably reflect the diversity of meanings and uses employed of them in historic and precontact periods (Brumley 1988; Mirau 1995; Vogt 1993). Therefore, to speak of medicine wheels is to lump a large number of diverse sites into a single category based on possibly artificial similarities or form.

Structures referred to as medicine wheels generally share characteristics. They were largely constructed of unmodified, locally available natural stone; they consist of a combination of at least two of the following primary components: a prominent central cairn, one or more concentric stone rings, two or more stone spokes or lines that radiate outward from a central origin point, a central cairn, or the margins of a stone ring; and these primary components are arranged in a radial/symmetrical manner (Brumley 1988; Liebmann 2002). Medicine wheels also vary widely in size; for example, Ellis Medicine Wheel in southern Alberta consists of a tipi-ring-sized stone circle 16 feet in diameter, whereas the Bighorn Medicine Wheel in Wyoming is 82 feet in diameter. Majorville Medicine Wheel in southern Alberta is the oldest known medicine wheel, dated to 3550 BCE (5500 BP) (Calder 1977; Brumley 1988). Construction of British Block Medicine Wheel and Tipi Ring Campsite, located in south-central Alberta, began around 2550 BCE (4500 BP). At least 351 tipi-ring-sized stone circles are associated with that medicine wheel; nineteen of these tipi rings are arranged in a camp circle with an opening in one area facing to the north. Archeologists estimate that about 190 individuals lived at this camp, which was used between approximately 1600 and 2300 BCE (3550 and 4250 BP). The camp circle at the British Block site is the oldest evidence for this type of setup. Bear Creek Ranch Medicine Wheel (48BH48), located approximately 30 miles west of the Bighorn Medicine Wheel (48BH302), exemplifies the smaller-sized wheels. It is comprised of an 8'-diameter rock-lined circle having seven spokes radiating out from a 2'-diameter circle, the latter placed just off center within the larger circle (Liebmann 2002).

Since limited excavation data sets are available for most medicine wheel sites, the configuration of these structures is used in grouping them into eight defined subgroups.[10] The Bighorn Medicine Wheel falls into Subgroup 6, which is defined by Brumley (1988:5) as having ". . . a prominent central stone cairn surrounded by a stone ring. Two or more interior stone lines connect the stone ring to the cairn." Only two other medicine

wheels fall into this category: the above-mentioned Majorville Medicine Wheel, and the Jennings Medicine Wheel, located in central South Dakota.

Archeologists have generated theories to account for the construction of medicine wheels. The best known of these theories are burial/memorial hypotheses (Dempsey 1956; Kehoe 1977), and theories revolving around astronomical observation (Cornell 1981; Eddy 1974, 1977; Kehoe and Kehoe 1977a, 1977b, 1987; Mansfield 1980; Robinson 1980). None of these explanations satisfactorily accounts for all of the structures included in this category. Liebmann (2002) notes that, if archeologists are to learn more about the use of these structures in Precontact and early Historic periods, each site must first be examined within its distinctive relevant local contexts. "Only after this research is complete," he concludes, "can viable explanations accounting for large numbers of these configurations be proffered."

There now exists mutually supporting archeological and ethnographic data relevant to the symbolism and meanings of the medicine wheel phenomenon as a whole (Hall 1985; Kehoe 1999; Kehoe and Kehoe 1977; Liebmann 2002; Mansfield 1980; Wilson 1981:360-362). Researchers have incorporated ethnohistorical and photographic documentations dating back to the late nineteenth century, when the Northwest Plains culture region was in transition from Native American to European American control. Specific to Medicine Mountain, historical accounts indicate that vision quests were performed here during the nineteenth century (Lowie 1918); for example, pits constructed for vision quests and described by Grinnell (1922:300) are now identified via archeological inventories of Medicine Mountain (Matthews 2009).

Nationally Significant Information Potential

As indicated by ethnographic, documentary, and archeological research, Medicine Wheel/Medicine Mountain NHL contains a large concentration of resources that reflect a broad continuum of use over time by multiple aboriginal groups. The expansion of this National Historic Landmark to include not only the Medicine Wheel itself, but also its larger associated landscape, yields an exceptional opportunity to expand our knowledge of such sites throughout the United States and North America.

Additional research at Medicine Wheel/Medicine Mountain NHL would be extremely valuable to researchers as it is likely to yield important information that would address research questions on several nationally significant topics. These include questions regarding morphology and function of medicine wheels throughout the Northwest Plains region of the United States and Canada; how such sites relate to the larger social organization and trade route development of Northwest Plains tribes; the adaption to mountain environments by precontact people; and ceremonial activities that specifically focused on Medicine Mountain. The fact that the archeological features do not exist in a vacuum adds considerable value; the availability of ethnographic information provides invaluable insight. The interplay between these different lines of evidence provide a richer, more comprehensive understanding that would not be possible using either source alone.

To date, there is only a limited amount of archeological research devoted to the study of medicine wheels and associated encampment features. For instance, archeological excavations of medicine wheels to date have provided temporal parameters for several medicine wheel forms, as well as providing general information by way of associated cultural material aspects of their use. Once obtained and interpreted, the corpus of data derived from the Medicine Wheel/Medicine Mountain NHL could be applied to addressing a wide range of research topics that are applicable to the Northwest Plains medicine wheel phenomenon. One example of a research topic concerns the frequent association of medicine wheels with numerous tipi rings. This observation has been used to argue the belief that medicine wheels reflect group-oriented rather than individual religious and social activities. However, any such group activities should not be viewed as an organized religion, as traditional Native American spiritual practice is highly individualistic with traditional cultural knowledge passed through families and often not transmitted as part of organized bodies of

knowledge. The overall magnitude of certain medicine wheel structures, such as the Bighorn Medicine Wheel, and the Majorville and British Block Medicine Wheels, is also suggestive of group activities on a massive scale. The association of unusually large concentration of tipi rings with these larger-sized medicine wheels provides the basis for believing considerable time depth exists in aspects of basic social organization for Northwest Plains tribes. Archeological research conducted at medicine wheels has been highly productive since the overriding approach by researchers has been to interpret medicine wheels within their broader setting. Therefore, a continuation of archeological research within Medicine Wheel/Medicine Mountain NHL fits well with this region-wide approach.

The potential for scientific investigation is often determined by the condition of the cultural resources within a particular area. Within Medicine Wheel/Medicine Mountain NHL, this potential is made evident via test excavations of several precontact sites within the NHL. Although in some instances surface cultural materials show signs of natural or recent manmade disturbance, substantial amounts of intact cultural deposits are present at many of the recorded sites. These deposits, in turn, typically contain assemblages that include temporally diagnostic projectile points as well as varieties of other lithic artifact types, faunal remains, and intact subsurface hearths containing datable carbon. Obtaining a series of absolute dates from a variety of sites within the NHL would answer questions concerning the longevity of precontact use patterns as they relate to high altitude adaptations. Intact subsurface deposits also hold promise for extracting palynological and macrobotanical remains, which can address questions regarding Native American utilization of ethnographically identified medicinal/ceremonial botanical resources found largely restricted to high altitudes that exist within Medicine Wheel/Medicine Mountain NHL. Diagnostic lithic projectile points and other types of lithic tools, as well as sourcing non-local/exotic lithic material types, would significantly add to the corpus of data regarding identification of precontact tribal groups who visited Medicine Wheel/Medicine Mountain NHL. When combined with ethnographic data, this would permit a better way to identify precontact Northwest Plains, Great Basin, and Plateau tribal groups with historically identified tribes. This information may also assist in understanding which tribes participated in the construction of ceremonial features and their ancillary tipi ring groupings. Dating the construction of the Bighorn Medicine Wheel and its associated features may render additional inferences about its function and antiquity.

Mutually supportive archeological and ethnographic information suggests the following avenues of archeological research:

- Radiocarbon dates, when tied to data derived from palyonological, macrobotanical, and faunal remains, may answer questions concerning Native American land use patterns and specialized adaptation to mountainous environments that exist within North America as a whole. Data derived from Medicine Wheel/Medicine Mountain NHL archeological sites may be compared with comparable data derived from similar high elevation settings and, as a consequence, may indicate that Native American use of Medicine Mountain biotic resources was, and still is, out of the ordinary. For example, oral histories indicate that certain places on Medicine Mountain hold traditional importance for gathering specific medicinal plants. Palynological and macrobotanical remains obtained from these places may provide indications as to the longevity of these practices.

- Identification of exotic lithic materials within the NHL may provide clues regarding dynamics of Northwest Plains trade routes development through time. Direct association of exotic lithic material within an intact subsurface matrix, combined with datable radiocarbon samples, may permit a determination as to approximately when Medicine Mountain first became a specific destination for non-local native peoples.

- Dating the construction of the Medicine Wheel (48BH302) has been an enduring objective of

archeologists. A comprehensive study of cultural deposits in direct physical association with the Medicine Wheel would render additional inferences about its evolved morphology and function(s) through time.

- Medicine Wheel/Medicine Mountain NHL provides unique physical remains of certain types of precontact spiritual and cultural practices. Furthermore, these remains occur in a contextual setting replete with other culturally affiliated, contemporaneous archeological sites found on the northern Northwest Plains of Canada and United States. Ongoing archeological research within this region may aid in identifying which Native American groups participated in developing Medicine Mountain as a sacred place.

EUROPEAN AMERICAN ACCOUNTS AND DOCUMENTATION OF MEDICINE MOUNTAIN

The period of transition from Native American to Euro-American control of the Bighorn region took place from about 1880 to 1910. Prospectors observed the Medicine Wheel in the 1880s, and the gold mining camp of Bald Mountain City was established a few miles to the east in the early 1890s (Grey 1963:27). Bighorn National Forest encompassed the site after its creation in 1887. In 1898, the governor of Wyoming issued an invitation to Salt Lake City for Mormons to help colonize the vast and largely unoccupied region left relatively vacant by the confinement of its former native inhabitants on reservations (Rodney Crosby, interviewed 5/17/94). The mostly Mormon early settlers arrived during a crucial transitional era, when the region slipped into an entirely different cultural understanding of the meaning and use of the land. Just west of Medicine Mountain in the Bighorn Basin, the settlers developed the community of Lovell, Wyoming. Some pursued sheep and cattle ranching and grazed their livestock on Medicine Mountain. Many current residents of Lovell count parents and grandparents among the original settlers of the area, and older citizens remember the early years, when there were no roads into the mountains and few if any modern amenities.

To the new settlers it seemed the land was simply there, waiting, inviting, open, and uninhabited, despite evidence of previous Native American habitation. This assumption contributed to the continuing perception that contemporary Indians were not related to the cultural remains found in the Bighorn Mountains. In addition, reservation administration was particularly strict from the 1880s into the 1930s, and Indian people were forbidden by law and under threat of punishment to practice their traditional religions. They were required to obtain special passes known as “green cards,” which Indian agents gave at their own discretion, in order to leave the reservations to visit relatives or for any other purpose. This suppression of Native religious practices continued to inhibit ceremonial visits to sacred sites for many years. Francis Brown, a Northern Arapaho traditional elder, wrote about the difficulties Indian people faced when attempting to access the Medicine Wheel:

> There are many stories still told among the Arapaho people, about tribal people around the turn-of-the-century who wanted to go and worship our God and collect herbs on the sacred mountain [Medicine Mountain], but were reluctant because of fears of being caught and punished (Brown 1989).

An important source of information about traditional use of the Medicine Wheel during the late nineteenth and early twentieth century consists of ethnohistorical and photographic documentation beginning in the period when the land passed from Native American to European American hands. For example, Bighorn National Forest files contain portions of an interview with Robert E. Rath, a foreman with ML Ranch from 1882-1890, who reported:

> When I first saw that great Medicine Wheel up on the Bighorn Mountains, in that Medicine and Bald Mountain country, there was in the center an arrangement of stones built up about as high as a man's head with a slab of rock across the opening that faced the east, which must have been used to sit on, as the whole thing rather resembled a chair. There was a small arrangement of rocks on the rim of the wheel, east of center, where probably some one stood during the Indian ceremonies. West of the Wheel, about 100 feet, there were more rocks arranged in a square of about 12 feet (Rath n.d.).

Recreation seekers who ventured into the mountains in the early days of settlement were typically interested in hunting, fishing, and searching for Indian trails and artifacts (Ed Michelsen interviewed 8/26/93; Frances Burrell, interviewed 7/20/93; and Fenton Wood, interviewed 7/21/93). Early residents reportedly took "wheelbarrow loads" of artifacts from caves in the vicinity of Medicine Mountain. Some of the early visitors to the area noted the convergence of trails and increased density of artifacts in the vicinity of Medicine Mountain (e.g. Frances Burrell, interviewed 7/20/93). Local residents still know one of the paths leading up to the Medicine Wheel as "the Old Sioux Trail," and what is now part of a north-south road system about five miles east of the Medicine Wheel was called "the Crow Trail" (Boggs et al. 1999). Both trails, by all accounts and in early photos, previously were much more clearly defined than they are today.

The September 28, 1895 issue of *Forest and Stream* contained the first published account of the Bighorn Medicine Wheel in an article by Paul Francke about sheep hunting in the Bighorns. After identifying Medicine Mountain as a place of worship for Indian tribes, Francke described the "so-called Medicine Wheel, the plan and general arrangement of which bear a striking resemblance to the famous Calendar Stone of Old Mexico."

> It is said that these smaller [peripheral] huts were, during the religious ceremonies, occupied by the medicine men of the different tribes, while the larger hut in the center was supposed to be the abode of Manitou. The Wheel appears to be of great antiquity. The nearest Indian tribe, the Crows, know nothing about its age, and the former inhabitants of the country, the Sioux, say it was on Medicine Mountain when they and their forefathers occupied the land.

Another report from the same era discussed ceremonial activities on Medicine Mountain. Don Grey of the Wyoming Archeological Society quoted an unattributed news article in the June 25, 1896 issue of the *Sheridan Enterprise* in which Green Gall, a Crow Indian, reportedly constructed a "Medicine House" on Medicine Mountain in 1845 (Grey 1963: 27).

In July 1902, S. C. Simms of the Chicago Field Museum of Natural History visited the Medicine Wheel. In the earliest description of the Medicine Wheel in a scholarly journal, a 1903 issue of *American Anthropologist*, Simms reported he learned of the existence of the Wheel from a member of the Crow tribe (Simms 1903). Crow informants disclosed very little information about the Medicine Wheel, but did tell Simms "...it was made by people who had no iron." Simms also asked two Sioux visitors at the Crow Agency about the Wheel. They knew of its existence, but like the Crow informants claimed to know little about it. When shown a drawing of the wheel by Simms, they "...drew a diametrical line through the wheel and, pointing to one half, said, 'Arapaho,' and then pointing to the other half said 'Cheyenne.'"

The Bighorn Medicine Wheel itself evidenced fairly recent ceremonial use at that time. The central cairn, for instance, featured a buffalo skull that Simms apparently collected and took to the American Field Museum in Chicago. In the same year, N.H. Darton of the US Geological Survey also saw the wheel, leading that agency to describe it as "of great interest" and worthy of preservation (Smith 1916).

Another noteworthy early documentary source is W. A. Allen's *The Sheep-Eaters* (1913) in which the author related the accounts of a member of the Sheepeater or Mountain Shoshone tribe that formerly occupied the Bighorn Mountains. The native informant, reportedly the only surviving Sheepeater Indian, described the ceremonial use of the Medicine Wheel ("their altar on Bald Mountain") and related the 28 spokes to the original 28 Sheepeater tribes. With regard to the possible ceremonial use of the Medicine Wheel by the Shoshone, Shimkin (1953) reported that according to tribal oral traditions, the first sun dance performed by the Shoshone occurred in 1800 somewhere in southern Wyoming or the Bighorn Mountains. Grey (1963: 38) has suggested that the Bighorn Medicine Wheel may commemorate this event.

Bighorn National Forest files contain several early documents that directly reference the Medicine Wheel and the surrounding landscape. In 1916 a four page letter entitled "Boundaries, Medicine Wheel National Monument (Proposed)" by Acting Forest Supervisor A. G. Stockwell briefly summarized what was then known about the Wheel in consideration of an early proposal to designate it a National Monument. Stockwell reported:

> According to Mr. George Griffen of the Sheridan Banking Company who first saw the Wheel in 1887, the piles [the cairns/enclosures] were originally small houses about three feet high which had openings facing the center of the Wheel. The house in the center was then 12 feet high. When Mr. Griffen visited the spot again in 1894 these monuments had been badly knocked about and the appearance of the Wheel completely altered. Someone had dug a hole under the central house with the object apparently of discovering some buried treasure or relic (Stockwell 1916).

Stockwell also referred to Herbert H. Thompson, an amateur historian of Wyola, Montana, who made "a study of the Wheel for two or three years and has spent some time with the ... [Crow] to learn what they know about it." Thompson reported that the Wheel "was there before the Crows came to the Bighorns." The Crows had made inquiries of the Blackfeet, who in turn stated it was there before they came to the country. Stockwell mentioned other findings reported by Thompson.

> Mr. Thompson claims it [the Medicine Wheel] is held in great reverence by the Crows and some other tribes and at one time it was regarded as a kind of neutral territory where representatives of warring tribes would meet. He says that a few of the older Crows would go there each year to repair it. However, they have not been observed visiting it for several years and the Wheel shows no signs of repair.

Thompson, sometime around 1912-16, also took photographs of the Wheel, "...from an elevated platform which he built for the purpose." This is the first reference to a platform for viewing and photographing the Medicine Wheel, an idea that the Forest Service later put forward as part of its plans for developing the site in the 1950s and again in the late 1980s. A later source reported that Thompson found [redacted] the Wheel (Grinnell 1922:305). Around 1916 Thompson reported that Crow Indians had regularly visited and repaired the Wheel in the past, but they had not done so for several years.

Stockwell also reported on the findings of Charles Davis, a local resident, who had worked as a ranger in the Bighorn National Forest. Davis had "questioned Crows, Sioux, Bannocks, and Shoshones" about the Medicine Wheel. All of them knew of it, none knew who had first built it, and "...they all believe it was put there by the sun to show the Indians how to build a teepee." This seemingly obscure reference may relate to the construction of the sun dance lodge, which today is often referred to simply as "the Lodge." Davis disagreed with Thompson that all Indians greatly respected the monument, as he reported seeing some groups "pass right by it without paying any attention to it." Davis also reported finding smaller wheels on nearby Hunt Mountain.

Wyoming professional historians I. S. Bartlett (1918) and Eunice Anderson (1922) briefly described the Medicine Wheel in early historical publications. Bartlett (1918: 42) contemplated possible Aztec connections to the Medicine Wheel, but concluded that the structure's origins were undecided.

Robert H. Lowie, one of America's most respected and influential ethnologists, produced several authoritative studies of Crow Indian culture based on extensive ethnographic fieldwork among the Crow from 1907 to 1916. In his landmark study *The Religion of the Crow Indians*, Lowie quoted from a deposition by the Crow Indian Flat-Dog (Lowie 1922: 436):

> According to Flat-Dog this monument [the Medicine Wheel] was regarded by the Crow as the Sun's Lodge, i.e., as a lodge made for the Sun and used by him as a camping place. As a boy Flat-Dog walked through it, counting fifty steps. Many of the Crow would go there to fast; the structure has been there as long back as any period alluded to by previous generations.

Anthropologist George Bird Grinnell visited the Medicine Wheel in 1921 (according to later writings by H. H. Thompson in the *Sheridan Post*) and published an article in *American Anthropologist* about his findings in 1922. Grinnell stated the resource had "long been known to a few white men and always to the Indians" and reported,

> The wheel consists of a wide and somewhat irregular circle of large stones, which has a diameter of from seventy-four to eighty feet. In the center of this circle is an inner circle of large stones - piled up in a wall - about twelve feet in outside diameter and about seven feet inside, and from two and a half to three feet high. From the outer side of the wall of this inner, the central, circle, twenty-eight lines of small stones, set close together, radiate to the border of the outer circle (Grinnell 1922: 299).

Grinnell wrote that "up to within a few years [of his examination], a Crow Indian, Split Ear, had visited it more than once" (Grinnell 1922: 305). Grinnell's principal native consultant was an elderly Cheyenne Indian named Elk River who compared the Medicine Wheel to a Cheyenne sun dance lodge. Grinnell also made note of a well-used travois trail [redacted] that leads to the Wheel, as well as [redacted] and within [redacted] the Wheel. These [redacted] are apparently no longer present.

Elsa Spear Byron, an early resident of the area who was born in Big Horn, Wyoming, in 1896, also took a great interest in the Medicine Wheel, and collected much material relating to it that she left to the Bighorn National Forest. In an undated memorandum in the Forest archives, Byron (n.d.) suggested the cairns were

> ...probably the shelters for the chiefs or medicine men of the different tribes in time of worship.... The Indians who came into this country realized that this place was for worship and on top of the large rocks at the edge of Medicine Mountain they built little shelters of rock with a hole just large enough to crawl into. There they would go to fast until they had a vision of how to make their medicine. They claimed that the 'little people' lived in these dreamhouses and so they left offerings....

Byron also noted, "That the Wheel was visited by countless numbers of people is shown by the old worn travois trail, which is visible for two or three miles." These accounts from the early years of the European American Period show that contemporary tribes, those who lived in and traveled through the Bighorn region at the time it came into European American control, showed reverence for the Bighorn Medicine Wheel and Medicine Mountain. Almost all the early accounts agree on this point.

While continuing interest by European Americans in the Bighorn Medicine Wheel is evidenced by numerous articles in newspapers throughout the nation during the 1910s through 1970s, the accounts focus on the possible origins, uses, and "mystery" of the Wheel, rather than on contemporary Native American use of the site. The fact that tribal members were accessing the site throughout this period, when traditional spiritual practices were suppressed, is amply supported by a number of informants in the Boggs' ethnographic studies (See discussion earlier in this section).

In 1974, University of Wyoming archeologist Michael Wilson directly questioned the view of "Medicine Wheel as a mysterious relic" notion. Wilson noted that a number of prevailing theories would have the Wheel constructed by white men, including "...the French explorer La Verendrye..., off-course Russian explorers, modern sheep herders, gold miners of the 1880s, and men engaged in the fur trade." Other theories that Wilson cited attributed the original construction to Aztecs from Mexico, Mound Builder civilizations from the Mississippi River Valley, Gnomes, and various cults. He observed these theories seemed to go out of their way to avoid the obvious, crediting anyone but Northwest Plains Indians. "The fact is," Wilson noted, "that all elements of the Medicine Wheel--rough circle, spokes, cairns, and the opening to the east--all of these elements fit perfectly within the symbolic framework of the Plains Indians" (Wilson 1974:3; see also Wilson 1981: 351). From anthropological and historical perspectives, the settlers did not simply move into empty land, but rather replaced the former Indian inhabitants whose cultural traditions, for at least 10,000 years and perhaps longer, had defined that land within an evolving system of belief, lore, and symbolism.

EFFORTS TO RECOGNIZE AND PROTECT THE MEDICINE WHEEL

Efforts to officially recognize the significance of and protect the Medicine Wheel began in 1915 when Representative F. W. Mondell, in response to requests by the State Federation of Women's Clubs of Wyoming, asked the Department of the Interior to begin inquiries about the Medicine Wheel in preparation for making the site a national monument under the Antiquities Act of 1906. In 1916 the United States Geological Survey and Smithsonian Institution replied to Interior Department requests for information concerning the resource. The Geological Survey (Smith 1916) reported, "This Wheel was found in 1902 by Mr. N. H. Darton of the Geological Survey.... The feature is one of great interest and should be preserved. It was in fairly good order when last inspected." At about the same time, the Secretary of the Smithsonian Institution recommended the creation of a national monument (see Sherman 1916). The matter was referred directly to Bighorn National Forest, which retained administrative responsibility for Medicine Mountain. Acting Supervisor A. G. Stockwell (1916) discussed the site with local people and summarized information presented by H. H. Thompson, George Griffen, and Charles Davis (see "European American Accounts and Documentation of Medicine Mountain"). Stockwell suggested, "If it is decided to create the Wheel a national monument and to fence it, the Indians might be asked to repair it in its original form." Acting District Forester C. J. Stahl believed further research was required to establish the Wheel's significance:

> Evidently it has but little to recommend it as a National Monument, although, of course, this may be chiefly a temporary circumstance, attributable only to the obscurity and uncertainty of its origin, history and symbolism. Intrinsically, it is clear that it has no attractions at all, but it is possible that future archeological study and research concerning it, which seems to have lately excited the attention of several of the local residents, may eventually bring to light facts and traditions surrounding the relic that may make it worthy of preservation as an ancient and perhaps historic landmark (Stahl 1916).

In 1925, the Forest Service, whose mission did not include establishing monuments, built a stone wall around the Medicine Wheel to protect it from damage by livestock.[11]

A renewed effort to designate the Bighorn Medicine Wheel as a national monument surfaced in the early 1940s. In response to a request for information from the Secretary of the Interior, National Park Service Director Newton B. Drury reported that "the 'Wheel' is within the Bighorn National Forest and has never been formally investigated by this Service" (Drury to the Secretary of Interior 15 Nov. 1941. Wyoming SHPO Archival Files). Drury instructed NPS staff, including an archeologist, to study and report on the Wheel. A. R. Kelly, NPS Archeological Sites Division Chief, prepared a January 1942 memorandum that indicated:

> Medicine Wheel on Medicine Mountain, Wyoming...is one of the best preserved prehistoric stone configurations in the western United States. The site should be preserved and protected as an outstanding example of its kind. [The site] might contribute data of great scientific value on the origin and evolution of Plains Indian ceremonialism.... It is doubtful, however, if all the 'sacred area' is effectively encompassed, as surface reconnaissance and archeological survey are needed to bring out significant structures (Kelly to Director, NPS, January 2, 1942. Wyoming SHPO Archival Files).

It is significant that Kelly, as early as 1942, realized that the Medicine Wheel was not an isolated cultural feature. He also explicitly identified the resource as a Plains Indian sacred site. However, World War II interrupted plans for extensive field investigations. In October 1956, Wyoming Governor Milward L. Simpson wired the National Park Service: "Newspaper publicity rumors that National Park Service is contemplating attempt to move the Indian Medicine Wheel in the Bighorn Mountains to a new site. I am sure that the rumor is as fantastic as the proposal is unsound. Please re-assure our people so I can put this silly rumor to rest" (Simpson to C. L. Wirth, Director NPS, October 19, 1956. Wyoming SHPO Archival Files). The Park Service disclaimed any such intention, and the Forest Service acted to further protect the site.

On June 12, 1957 under *Public Land Order 1432* Forest Service withdrew about 80 acres around the Medicine Wheel "...from all forms of appropriation under the public land laws, including the mining and the mineral-leasing laws...and reserved [it] under the jurisdiction of the Secretary, Department of Agriculture, for the protection and preservation of the archeological values of the Medicine Wheel and adjacent historic area . . . ." (34 Stat. 225; 16 U.S.C. 431). The following year the agency first advanced plans "for the rehabilitation and improvement of the Medicine Wheel and adjacent area" (Lovell Chronicle 21 June 1958). The new plans proposed replacing the barbed wire fence with a more secure chain-link fence, creating an information display, and erection of an observation and picture-taking tower that was never constructed (BHNF Press Release to *Lovell Chronicle*, June 21, 1958, BHNF Archive Files).

Public Land Order 1432 did not silence demands that the site be designated a national monument. In 1967 and 1968, following completion of a professional study of the Medicine Wheel (see Gray 1963), Lovell Mayor Cal Taggart, Louis Steege of the Wyoming Archeological Society, and the Wyoming State Archives and Historical Department sought such designation. Addressing the issue in a 1968 letter, District Ranger Richard Greffenius judged,

> The Medicine Wheel is an Indian relic of great local interest, of considerable state-wide interest, of growing national interest, and, perhaps, of national historical or archeological significance. It has been widely publicized, and is visited annually by many people from all over the country. Its origin and intended purposes have been intenseley [sic] studied, and widely hypothesized. Attempts to preserve it have been somewhat, but not totally, successful…. Adequate preservation and development of the site has been inhibited largely by the lack of definite, accepted facts as to its origin and purpose (Greffenius 1968).

The letter contained the first formal recommendation by Bighorn National Forest personnel to address the lack of information about the resource. This new emphasis resulted in the Medicine Wheel's listing in the National Register of Historic Places in 1969 and National Historic Landmark designation in 1970, in recognition of the resource as "...the largest and most elaborate Indian structure of its type" (Department of the Interior 1970). Although the NHL nomination defined a boundary for the site that included the Medicine Wheel and adjacent areas and features, this boundary was not precisely described.

A widespread revival of relatively open, non-secretive traditional ceremonial use of Medicine Mountain by Native Americans began in the 1970s and became particularly noticeable by about 1980. Forest Service personnel reported contact with tribal members who visited the site, and they issued permits for ceremonies at the Wheel. Non-Indian interest in and visits to the Wheel also increased during this period, particularly among persons with "New Age" beliefs. In response to improvement plans to accommodate increasing tourism, the Native American community requested increased protection and recognition of the Bighorn Medicine Wheel as an important Native American religious site. Fieldwork conducted by archeologists subsequent to the 1970 NHL designation strongly suggested the Medicine Wheel was merely part of a much larger complex of sites (see Wilson 1973 and 1981, Reher and Wedel 1987, Laurent 1989, and Reeves 1991). The involved government agencies agreed to cooperate in sponsoring a study designed to establish boundaries encompassing all historic, ethnographic, and archeological sites associated with the landscape that included the Medicine Wheel.

In the early 1990s, the impact of increasing visitation resulted in management agreements that prohibited vehicular access, provided for Native American spiritual use of the Medicine Wheel, and stipulated the development of an agreement for its long-term management. An ethnographic survey was completed, and an archeologist compiled and synthesized all archeological information relating to the study area. A 1996 preservation plan and programmatic agreement established a 23,000 acre "area of consultation" that encompassed all cultural resources associated with the Medicine Wheel and facilitated traditional cultural use by Native American practitioners by providing for ceremonial functions and allowing plant gathering in support of religious activities. Vehicular uses generally were prohibited and replaced by pedestrian access, although exceptions were made for disabled and elderly visitors. Livestock grazing and timber harvesting were restricted, and site monitoring for adverse effects was established. Plans also included completion of an updated National Register or National Historic Landmark nomination. Efforts in 1999 and 2003 produced draft documents, significant portions of which are incorporated in this nomination, which is supplemented by additional information produced by later researchers. This nomination expands the criteria, significance, period of significance, and boundary, and changes the name of the district in recognition of the significant role Medicine Mountain plays in a larger sacred landscape embodied with cultural significance for American Indian peoples.

CONCLUSION

The Medicine Wheel/Medicine Mountain NHL District is one of the most important and well preserved Native American sacred sites in North America, playing an essential role in the lives of Native Americans throughout the Northwest Plains during its long history of human use as a sacred pilgrimage site. The district is nationally significant under National Historic Landmark Criterion 1 as a traditional cultural place in the areas of Religion and Ethnic Heritage (Native American) and under Criterion 6 in the areas of Aboriginal Historic and Precontact (Prehistoric) Archeology. Archeological research regarding the Northwest Plains medicine wheel phenomenon incorporates ethnohistorical information. By so doing, this research approach provides persuasive evidence that medicine wheels were constructed and used over a long period of time by peoples representative of several Northwest Plains cultural complexes. Many different lines of scientifically gathered evidence, including mutually supportive archeological and ethnohistorical data, document Medicine Wheel/Medicine Mountain's role as an ancient and ongoing place for Native American ceremonial activities.

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Previous documentation on file (NPS):

__ Preliminary Determination of Individual Listing (36 CFR 67) has been requested.
_X Previously Listed in the National Register: NR # 69000184; listed April 16, 1969
__ Previously Determined Eligible by the National Register.
_X Designated a National Historic Landmark: August 29, 1970
__ Recorded by Historic American Buildings Survey
__ Recorded by Historic American Engineering Record

Primary Location of Additional Data:

_X_ State Historic Preservation Office
___ Other State Agency
_X_ Federal Agency (US Forest Service, National Park Service)
___ Local Government
___ University
___ Other (Specify Repository):

10. GEOGRAPHICAL DATA

Acreage of Property: 4,080 acres

UTM References:	Zone	Easting	Northing
A	13	266573	4970036
B	13	275044	4970036
C	13	275044	4965374
D	13	266573	4965374

The coordinates above (in NAD 83) describe polygon ABCD, wherein the boundary of the nominated area is located (See Figure 13, USGS Location Map).

Verbal Boundary Description
The nominated area, delineated on the included to-scale sketch map, is situated in Township 56 North, Range 91 West, Sections 18 and 19 and Range 92 West, Sections 8 through 10, 13 through 17, and 20 through 25, Wind River Principal Meridian, Bighorn National Forest, unincorporated Big Horn County, Wyoming. The boundary is more particularly described as follows: beginning at the intersection of US 14 Alternate and USFS Road 12, thence westward along the north edge of US 14 Alternate for approximately 0.5 miles to the section line between Sections 25 and 26, T. 56 North, R. 92 West; thence north for approximately 0.5 miles along that section line and the section line between Section 23 and 24; thence west approximately 1.4 miles to a point in Section 22; thence north for approximately 0.4 miles; thence west for approximately 1.9 miles to a point in Section 20; thence north for approximately 1.6 miles to a point in Section 8; thence east for approximately 0.4 miles to the intersection with the section line between Sections 8 and 9; thence southeast for approximately 158' and south for 365'; thence southeasterly for approximately 0.25 miles (generally along the west side of Tillets Hole Creek); thence 85' east-northeast to the intersection with the 8,800' contour line; thence along said contour line for approximately 5.4 miles (through Sections 9, 10, 15, 14, and 13) to a point in Section 13; thence

north-northeast for approximately 621' to the intersection of the section line between Section 13 and 12; thence east along the section line for approximately 0.5 miles to the northeast corner of Section 13; thence south along the east edge of Section 13 for approximately 265' to the north line of the section line between Sections 7 and 18, T. 56 North, R. 91 West; thence east along the section line for approximately 0.7 miles; thence south for approximately 0.6 miles to the intersection of the north edge of USFS Road 13; thence westerly along the north edge of USFS Road 13 to its intersection with the east edge of USFS Road 137; thence northerly along the east edge of USFS Road 137 for approximately 321'; thence west for approximately 0.5 miles to the east edge of an unnamed road; thence southerly along the east edge of the unnamed road for approximately 0.4 miles; thence east for approximately 0.2 miles to the west edge of USFS Road 13; thence southerly along the west edge of USFS Road 13 for approximately 0.6 miles; thence west for approximately 0.5 miles; thence south for approximately 0.9 miles to the intersection of the north edge of US Highway 14 Alternate; and thence westerly along the north edge of the highway for approximately 418 feet to the point of beginning.

Boundary Justification

The expanded 4,080-acre NHL boundary encompasses the primary area on Medicine Mountain where religious and ceremonial activities take place. This area consists of a culturally patterned complex of features that include numerous archeological sites, vision quest enclosures, cairns, access trails, and other examples of American Indian sacred architecture. The inclusion of this larger area in the NHL reflects the fact that Medicine Mountain has been and continues to be a culturally significant spiritual and ceremonial center for numerous American Indian tribes in the United States. The boundary for the present NHL was drawn to expand the original 110-acre NHL approved in 1970 to include adjacent contiguous areas and is supported by subsequent ethnographic and archeological research. The purpose for the expansion is to add key ceremonial locations, including water sources used for ceremonies and access routes to the Medicine Wheel. In addition, the boundary was drawn to follow the contours of the mountain on the north side, as the mountain itself (which is seen as a dimensional doorway) is of primary significance to the traditional cultural practices and values that are the basis for this nomination.

While the Medicine Wheel itself remains significant as the major component of the nominated site, recently gathered information indicates that its tribal significance relies to a great extent on the larger, more encompassing geographic and cultural context of which it is a part. The USFS has been working closely with seven consulting parties (including tribal and local government representatives) for over 15 years regarding the appropriate boundary for the NHL. In 2009, all parties agreed to the proposed boundary detailed herein.[12]

11. FORM PREPARED BY

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NATIONAL HISTORIC LANDMARKS PROGRAM
June 7, 2010

Notes

[1] Brumley(1988) produced a general definition of a medicine wheel as a resource constructed of unmodified, locally available natural stone and consisting of a combination of at least two of the following primary components: a prominent central cairn; one or more concentric stone rings; and two or more stone spokes or lines that radiate outward from the central point.

[2] Both BCE-CE dates and BP dates are used in this document. BCE-CE dates are interchangeable with BC-AD dates, however, their use is preferred because of their lack of religious overtones (Before the Common Era – Common Era versus Before Christ and Anno Domini or In the Year of our Lord). BP dates are radiocarbon dates and not calendar dates and are useful here as many of the samples from the archeological properties within the Medicine Wheel/Medicine Mountain District have used radiocarbon dating to date materials and sites. Radiocarbon dating is a technique used to measure the length of time since the death of a once-living organism, based on the known decay rate of radioactive carbon isotopes (C14) from the year 1950. BP stands for Before Present, the present being the year 1950. 1950 is the date that calibration curves were established. 1950 also predates atmospheric testing of the atom bomb, which significantly upset C12/C14 ratios in the following years. For instance 1500 BP means 1500 years before 1950. It is also important for clarity to use both BCE-CE and BP dates because the resources extend into the Common Era (CE or AD). In other words it is important to note that the year 45 BP is actually the year 1905 CE (AD).

[3] The National Park Service defines a cultural landscape as "a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values." Medicine Mountain falls under the Ethnographic Landscape subtype: "a landscape containing a variety of natural and cultural resources that associated people define as heritage resources" (Birnbaum 1993).

[4] Resource descriptions are based on fieldwork conducted by USFS personnel and consultants in cultural resource surveys and ethnographic studies, documents and photographs provided by the USFS, and a site visit by the authors in August 2009. In some cases, exact years of construction are unavailable.

[5] Today people from tribes throughout the U.S. visit the site (see the annual Medicine Wheel monitoring reports).

[6] [redacted] is a geochemical method of determining age in either absolute or relative terms of an artifact made of [redacted]. To use [redacted] for absolute dating, the conditions to which the [redacted] sample has been exposed must be compared to associated samples of established age, such as the result of radiocarbon dating a piece of carbonized wood that was adjacent to the [redacted] sample.

[7] Jennie Parker's father, Miles Nelson Seminole, was in the epic trek of the Northern Cheyenne back from Oklahoma Territory in 1878, thus her account establishes a generational link, a transmission of knowledge about Medicine Mountain as a pilgrimage site that extends through the twentieth century and into the late 1800s.

[8] Today known as Sisseton/Wahpeton Oyate.

[9] In general terms the area defined by Frison (1991) as the Northwest Plains includes: the western portions of North Dakota, South Dakota, and Nebraska, including portions of the Little Missouri River, the Black Hills, and portions of the Cheyenne River to the east: portions of northern Colorado and Utah including portions of the South Platte River, Little Snake River, and Uinta mountains to the south; and eastern portions of Idaho including portions of the Snake River, and Madison River to the west, and the Montana/Canada border to the north.

[10] The eight types of medicine wheel structures are defined as follows: Type 1: This is the most common form of medicine wheel structures, consisting of a central cairn surrounded by a stone circle; Type 2 structures contain a passageway leading out from the stone circle; Type 3 structures consist of a central cairn with radiating cobble lines or "spokes"; Type 4 structures consist of a stone circle from which spokes radiate outward; Type 5 structures contain a circle with spokes radiating inward; Type 6 structures are similar but have a central cairn; Type 7 structures have a central cairn surrounded by a stone circle with spokes radiating outward; Type 8 structures are similar, but the spokes radiate from the central cairn and cross the circle. Since each medicine wheel is unique, the Types groupings are intended only for convenience of analysis.

[11] Because the wall offered insufficient protection for the Medicine Wheel, it was removed in 1939 and replaced by a post and barbed-wire fence (Williams 1975). That fence was replaced by subsequent barbed wire and chainlink and barbed wires enclosures until the current wood post and rope one was installed in 2002.

[12] Acknowledgements: The authors are profoundly grateful for earlier work on Medicine Mountain that provided a foundation for the current nomination and without which it would not have been possible to complete the task in the time allotted. Large portions of this nomination were based upon, and/or extensive extracts were incorporated from, the following National Register nomination drafts and studies: Boggs 1996, 1999, 2000, 2003; Johnston and Prishmont 2003. The authors also wish to extend our thanks for his assistance during our site visit and for his advice on what information needed to be added to the cultural context to: Bill Matthews, West Zone Archaeologist, Medicine Wheel and Paintrock Ranger District, Bighorn National Forest, 604 East Main, Lovell, WY, 82431.

Photograph 1: View of Medicine Mountain summit from the south escarpment. Five Springs Basin is to the right.

Photograph 2: Medicine Mountain summit with Federal Aviation Administration Radome (Resource 32) from the U.S. Forest Service Road to the Bighorn Medicine Wheel. A section of the travois trail (Resource 12) is visible on the hillside adjacent to the road (the lighter, wider linear features).

Photograph 3: Rocky promontories along the south escarpment of the district with the Five Springs Basin below and the Bighorn Basin in the distance.

Photograph 4: Rocky promontory near the west end of the south escarpment with Five Springs Basin and the Bighorn Basin beyond.

Photograph 5: Porcupine Creek drainage and mountains to the northwest from US Forest Service Road 12 (resource 39) (between the Visitor Building and the Bighorn Medicine Wheel).

Photograph 6: US Forest Service Road 12 (Resource 39) with ridge north of the Bighorn Medicine Wheel (Resource 2) to the right. The Medicine Wheel is located above and to the left of the cluster of trees where the road disappears. The viewpoint for the Five Springs Basin overlook is to the left of the road.

Photograph 7: Medicine Mountain (left) and the Bighorn Medicine Wheel (Resource 2) (center) with small restroom (Resource 31) building in foreground from the ridge north of the Wheel.

Photograph 8: Medicine Mountain summit in the distance with the Bighorn Medicine Wheel (Resource 2) in the foreground.

Photograph 9: Aerial view of the western end of the district with the Bighorn Medicine Wheel (Resource 2) near the center, the south escarpment to the left and above, Five Springs Basin to the far left, and the Elk Springs Creek drainage to the right of the forested area. Photographer: US Forest Service. Date: August 2002.

Photograph 10: Aerial view of Bighorn Medicine Wheel (resource 2) with US Forest Road 12 (Resource 39) at the bottom of the image. Photographer: US Forest Service. Date: August 2002.

Photograph 11: Bighorn Medicine Wheel (Resource 2) (foreground) with ridge to north, the restroom, and mountains in distance.

Photograph 12: Bighorn Medicine Wheel (Resource 2) with cairn in foreground and mountains to north in distance.

Photograph 13: Bighorn Medicine Wheel (Resource 2) with cairn in foreground.

Photograph 14: Buffalo skull at the center of the Bighorn Medicine Wheel (Resource 2.)

Photograph 15: Bighorn Medicine Wheel (Resource 2) with visitors' offerings placed on surrounding fence.

National Historic Landmarks

Property Name: Medicine Wheel/Medicine Mountain

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Image Number: 16 **Page**:

REASON: Figure shows the location of the site.

The location of this property is restricted information under law:
National Historic Preservation Act of 1966, as amended, section 304, 16 U.S.C. 470w-3(a)
- *Confidentiality of the location of sensitive historic resources*

Section 304
[16 U.S.C. 470w-3(a) – Confidentiality of the location of sensitive historic resources]
(a) The head of a Federal agency or other public official receiving grant assistance pursuant to this Act, after consultation with the Secretary, shall withhold from disclosure to the public, information about the location, character, or ownership of a historic resource if the Secretary and the agency determine that disclosure may –
(1) cause a significant invasion of privacy;
(2) risk harm to the historic resources; or
(3) impede the use of a traditional religious site by practitioners.

[16 U.S.C. 470w-3(b) – Access Determination]
(b) When the head of a Federal agency or other public official has determined that information should be withheld from the public pursuant to subsection (a) of this section, the Secretary, in consultation with such Federal agency head or official, shall determine who may have access to the information for the purpose of carrying out this Act.

[16 U.S.C. 470w-3(c) – Consultation with the Advisory Council]
(c) When the information in question has been developed in the course of an agency's compliance with section 106 or 110(f) of this Act, the Secretary shall consult with the Council in reaching determinations under subsections (a) and (b) of this section.

A redacted version was included with the series, from the state and year for this property that was sent to the Federal Records Center and from there to the National Archives.

A full version was sent in the address restricted series to the Federal Records Center and from there to the National Archives.

Photograph 17: Porcupine Creek drainage in the northeast area of the district with Medicine Mountain in the distance.

Photograph 18: Federal Aviation Administration Radome (Resource 32) and Support Building (Resource 33). Photographer: Travis Fack, USFS. Date: August 2009.

Photograph 19: Visitor Building (Resource 29) and Restroom (Resource 30) at the parking lot south of the Bighorn Medicine Wheel.

Table 1
RESOURCES WITHIN THE NOMINATED AREA

Resource Number	Description of Resource	State ID Number	Resource Type	Precontact Period or Year Built	TCP Status	Contributing Status
1	Medicine Mountain (includes summit, ridge to west, and all other land within the nominated area, which contains such traditional use areas as those used for staging, approach, ceremonies, prayer and vision questing, camping, and medicinal plant gathering, and landscape features)	N/A	Site	Geologic time	Yes	Contributing
2	Bighorn Medicine Wheel	48BH302	Site	Late Precontact	Yes	Contributing
3	Medicine [redacted]	[redacted]	Site	Early Archaic; Late Precontact	Yes	Contributing
4	[redacted]	[redacted]	Site	contemporary	Yes	Contributing
5	[redacted]	[redacted]	Site	precontact; contemporary	Yes	Contributing
6	[redacted]	[redacted]	Site	Late Archaic; Plains Archaic; Late Precontact	Unknown	Contributing
7	[redacted]	[redacted]	Site	Middle Archaic; Late Archaic; Late Precontact	Unknown	Contributing
8	[redacted]	[redacted]	Site	precontact	Yes	Contributing
9	[redacted]	[redacted]	Site	precontact	Yes	Contributing
10	[redacted]	[redacted]	Site	precontact	Unknown	Contributing
11	[redacted]	[redacted]	Site	contemporary	Yes	Contributing
12	[redacted]	[redacted]	Site	precontact	Yes	Contributing
13	[redacted]	[redacted]	Site	Late Archaic	Unknown	Contributing
14	[redacted]	[redacted]	Site	Early Archaic	Yes	Contributing
15	[redacted]	[redacted]	Site	Late Precontact	Unknown	Contributing
16	[redacted]	[redacted]	Site	Late Plains Archaic	Yes	Contributing
17	[redacted]	[redacted]	Site	precontact	Unknown	Contributing
18	[redacted]	[redacted]	Site	precontact	Unknown	Contributing
19	[redacted]	[redacted]	Site	precontact	Unknown	Contributing
20	[redacted]	[redacted]	Site	precontact	Unknown	Contributing
21	[redacted]	[redacted]	Site	precontact	Unknown	Contributing
22	[redacted]	[redacted]	Site	precontact	Unknown	Contributing
23	[redacted]	[redacted]	Site	Late Precontact	Unknown	Contributing

Resource Number	Description of Resource	State ID Number	Resource Type	Precontact Period or Year Built	TCP Status	Contributing Status
24	Corral/Fence	48BH809	Site	20th century	No	Noncontributing
25	Corral/Fence	48BH814	Site	20th century	No	Noncontributing
26	Dayton-Kane Road, Crystal Creek Wagon Trail	48BH1390	Site	19th century	No	Noncontributing
27	Wood pole	48BH1392	Site	20th century	No	Noncontributing
28	Cairn (ranching)	48BH1829	Site	20th century	No	Noncontributing
29	USFS Visitor Building	N/A	Building	2000s	No	Noncontributing
30	USFS Restroom (at parking lot)	N/A	Building	2000s	No	Noncontributing
31	USFS Restroom (at Medicine Wheel)	N/A	Building	2000s	No	Noncontributing
32	FAA Radome	N/A	Structure	1963	No	Noncontributing
33	FAA Radome Support Building (quarters and garage)	N/A	Building	1963	No	Noncontributing
34	Communications transmitter (Facility 2)	N/A	Structure	1970s-early 1980s	No	Noncontributing
35	Communications transmitter (Facility 3, west)	N/A	Structure	1970s-early 1980s	No	Noncontributing
36	Communications transmitter (Facility 3, south)	N/A	Structure	1970s-early 1980s	No	Noncontributing
37	Communications transmitter (Facility 4)	N/A	Structure	1970s-early 1980s	No	Noncontributing
38	Communications transmitter (Facility 5)	N/A	Structure	1970s-early 1980s	No	Noncontributing
39	USFS Road 12 and its branches	N/A	Structure	1940s	No	Noncontributing
40	USFS Road 133	N/A	Structure	1940s	No	Noncontributing
41	USFS Road 137	N/A	Structure	1940s	No	Noncontributing/
42	Bucking Mule Falls Trail	N/A	Structure	c. 1960	No	Noncontributing
43	Tillets Hole Trail	N/A	Structure	c. 1960	No	Noncontributing

Traditional Cultural Place (TCP) Status: TCP areas are considered to be part of the site and so are not individually listed on the table; therefore, the majority of contributing features listed in the table are archeological sites. In order to indicate where there has been documented overlap of archeological sites and TCPs, TCP status is included in the table. TCP status indicates if the resource or its location has been identified through ethnographic studies as associated with traditional spiritual and ceremonial practices by Native Americans as reported by Boggs (1997, 2003) and archeological survey forms for individual sites.

Precontact Periods: Early Archaic Period: 6050 – 3050 BCE (8000 - 5000 BP)
Middle Archaic Period: 3050 – 550 BCE (5000 - 2500 BP)
Late Plains Archaic Period: 1050 BCE – 450 CE (3000 - 1500 BP)
Late Precontact Period: 450 – 1600 CE (1500 - 350 BP)
precontact: age undetermined but earlier than 1600 CE (350 BP)

FIGURES

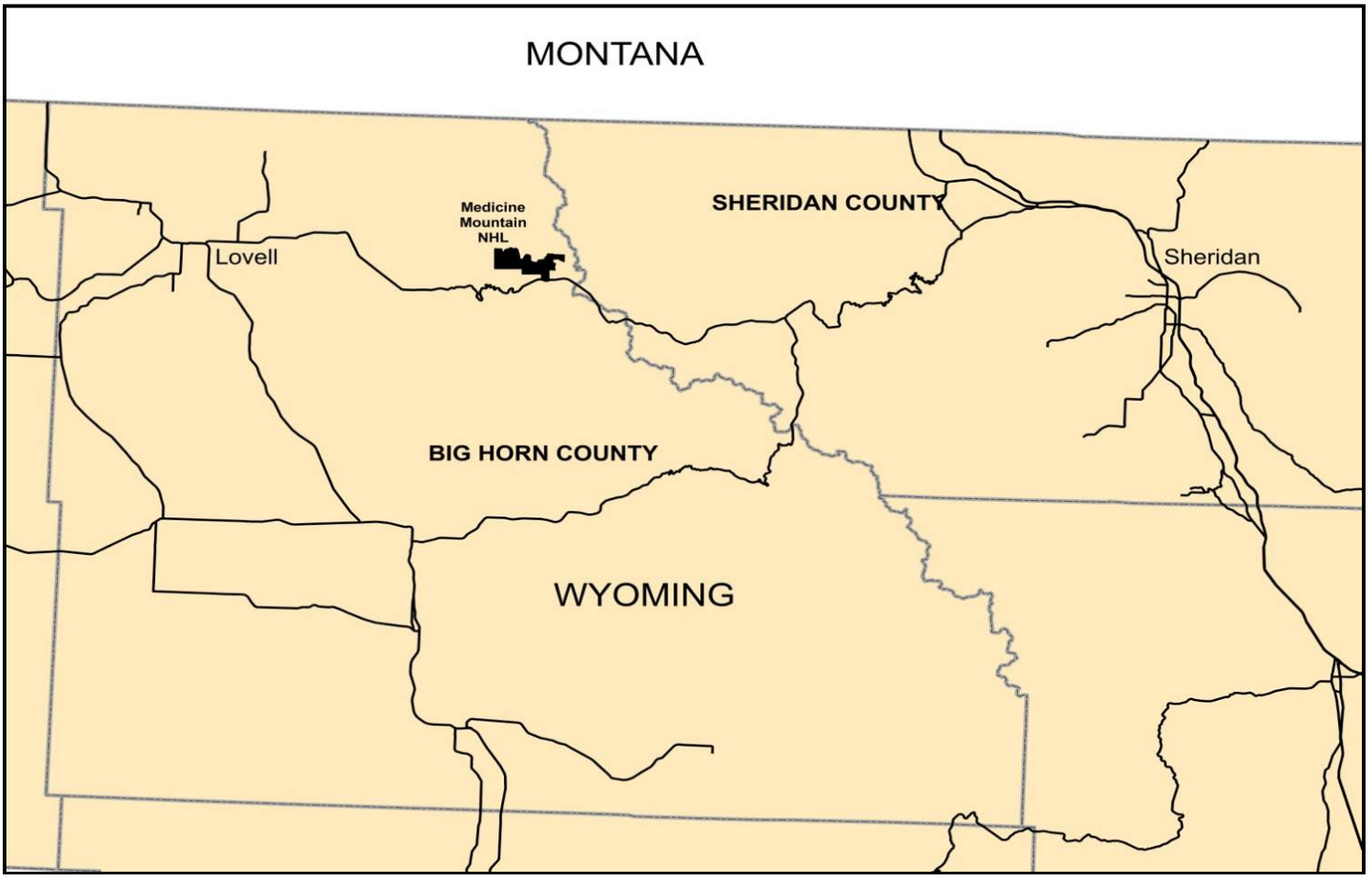

Figure 1. Medicine Wheel/Medicine Mountain NHL is located on the Bighorn National Forest in Big Horn County in north central Wyoming. The district lies about 12 miles south of the Montana border between Sheridan and Lovell along U.S. Highway 14 Alternate.

Figure 2. The path of a travois trail (48BH1393) is in the foreground, with the southern escarpment of the district to the left and the ridge to the north on the right. View is to the west-northwest in this photograph by Thomas M. Galey. SOURCE: Grinnell (1922).

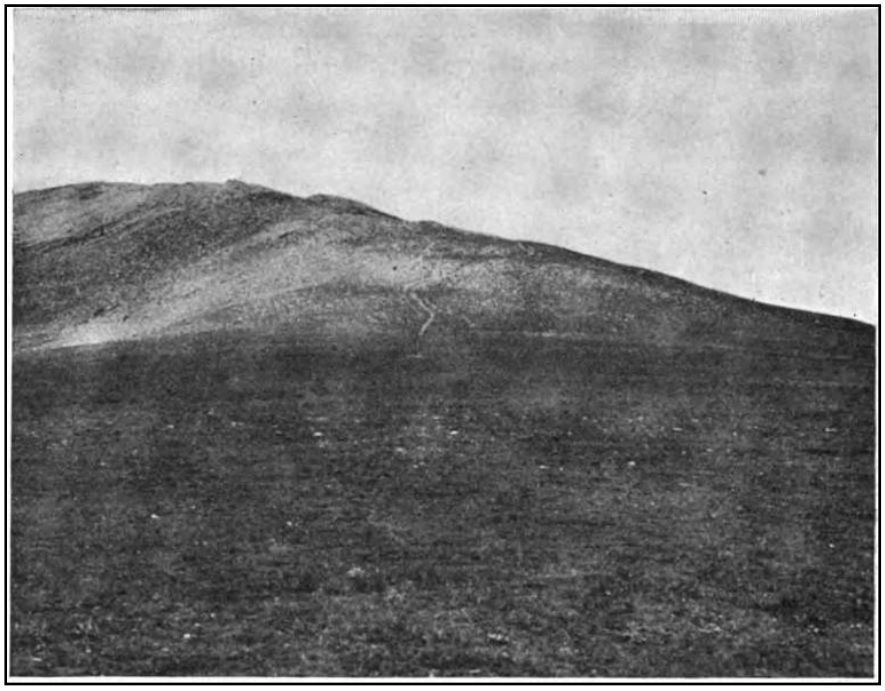

Figure 3. The faint line of the travois trail is visible on the slope of Medicine Mountain in this early view taken by Thomas M. Galey. SOURCE: Grinnell (1922).

Figure 4. This photograph of the Bighorn Medicine Wheel looking north was taken by Herbert H. Thompson in the late 1910s. SOURCE: Grinnell (1922).

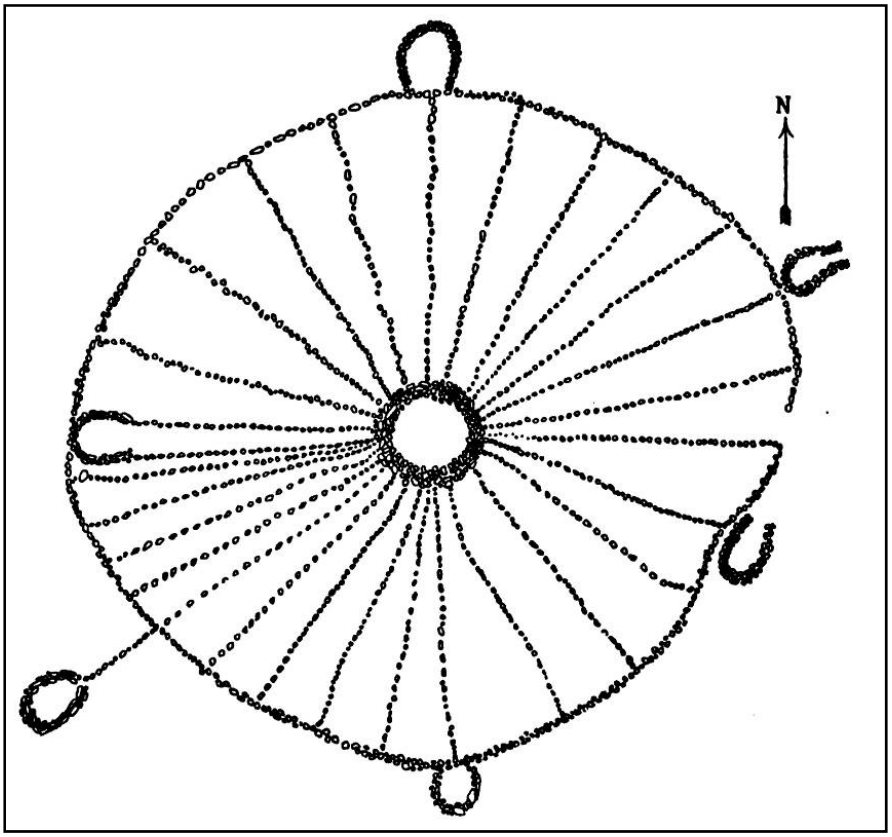

Figure 5. This drawing of the Bighorn Medicine Wheel was prepared by Thomas M. Galey. Compare with Figure 9. SOURCE: Grinnell 1922).

Figure 6. This 1922 view shows the central circle of the Bighorn Medicine Wheel. Thomas M. Galey was the photographer. SOURCE: Grinnell (1922).

Figure 7. This c. 1922 view northward provides another perspective on the Bighorn Medicine Wheel. SOURCE: USFS, Lovell, Wyoming.

Figure 8. This c. 1939 view to the northwest shows the Medicine Wheel in the foreground surrounded by a stone wall that the Forest Service built in 1925. The ridge to the north-northwest of the wheel lies in the distance. SOURCE: USFS, Lovell, Wyoming.

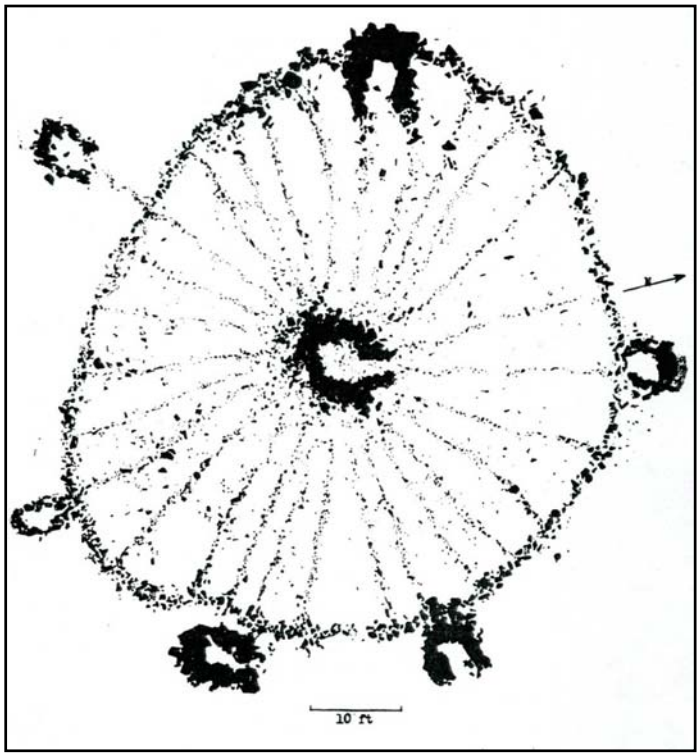

Figure 9. Don Grey produced this drawing of the Bighorn Medicine Wheel published in the *Plains Anthropologist* based on fieldwork in 1958. Compare with Figure 5. SOURCE: Grey (1963).

National Historic Landmarks

Property Name: Medicine Wheel/Mountain

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Figure Number: 10 **Page**:

REASON: Figure shows the location of the site.

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[16 U.S.C. 470w-3(c) – Consultation with the Advisory Council]
(c) When the information in question has been developed in the course of an agency's compliance with section 106 or 110(f) of this Act, the Secretary shall consult with the Council in reaching determinations under subsections (a) and (b) of this section.

A redacted version was included with the series, from the state and year for this property that was sent to the Federal Records Center and from there to the National Archives.

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National Historic Landmarks

Property Name: Medicine Wheel/Mountain

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Figure Number: 11 **Page**:

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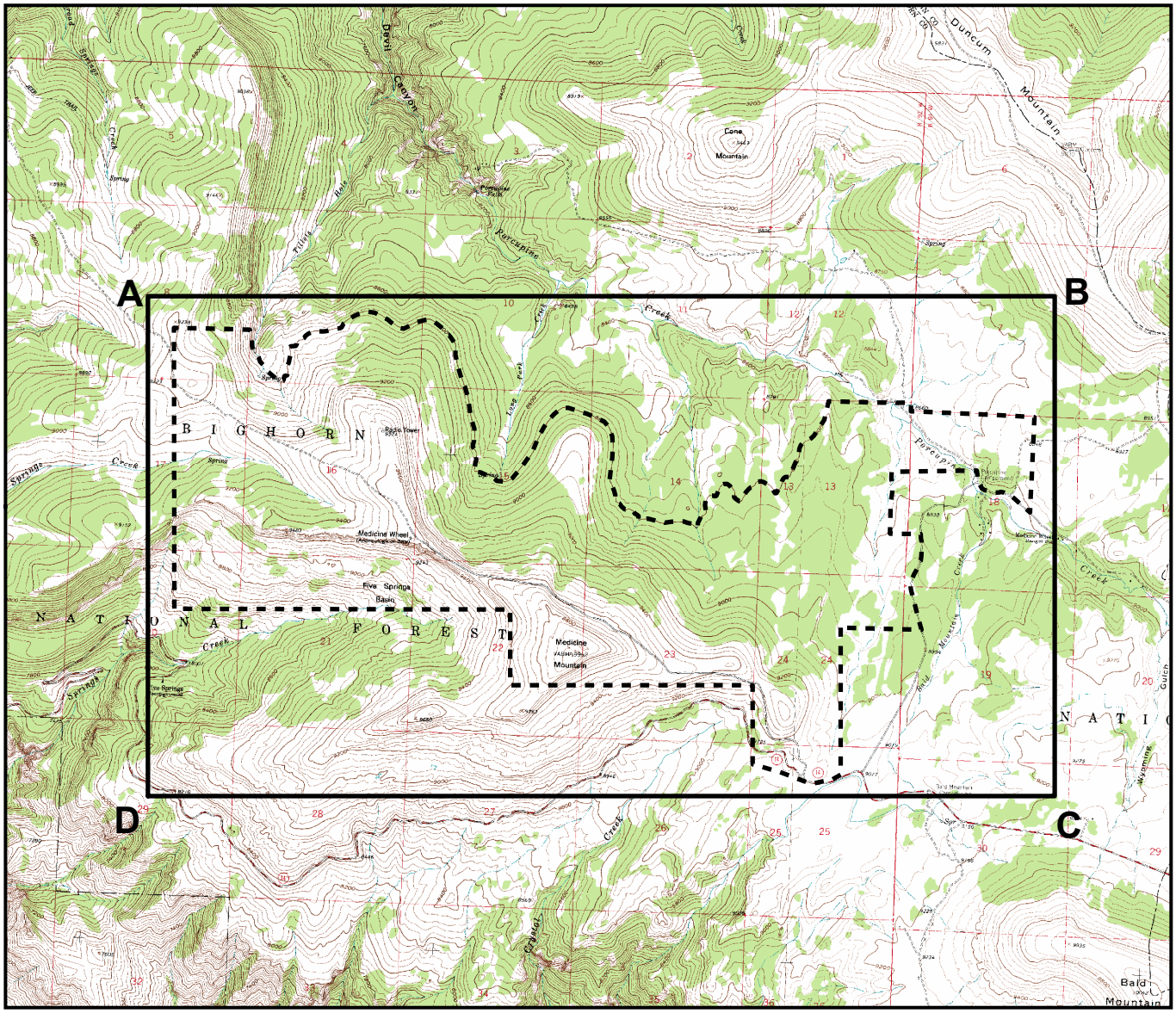
Medicine Mountain National Historic Landmark
USGS Location Map



The dashed line is the boundary of the nominated area. The solid line denotes the bounding polygon ABCD defined by the UTM coordinates listed in Section 10. SOURCE: Digital extracts of Medicine Wheel and Bald Mountain, Wyoming, 7.5 minute USGS maps.

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0 0.3 0.6 1.2 1.8 2.4